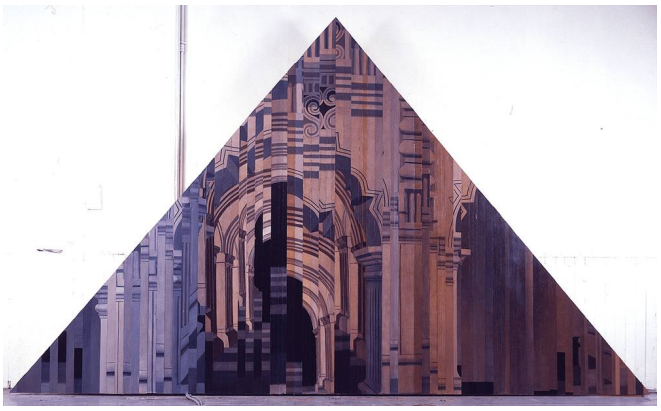
Jack Ox — Visualizations
A Picture Inventory

Every visualization documented on intermediaprojects.org and jackox.net, with the pictures.
Prepared for the Board of Directors, Intermedia Projects Inc. — October 2026.

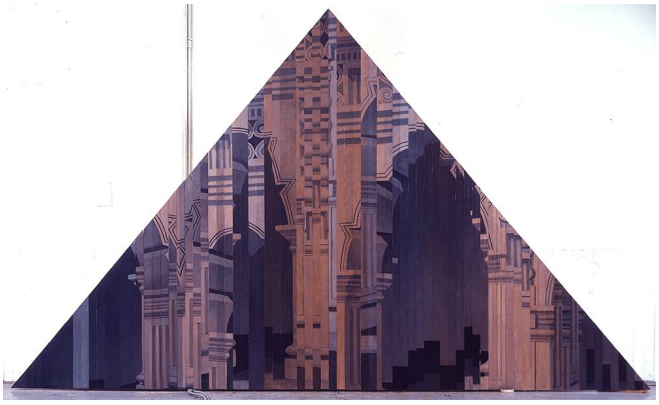
Note: the Ursonate's 55 First-Movement section thumbnails live on the Movement I index page; representative images appear here.

J. S. Bach — Ein feste Burg ist unser Gott, BWV 80 (1979)

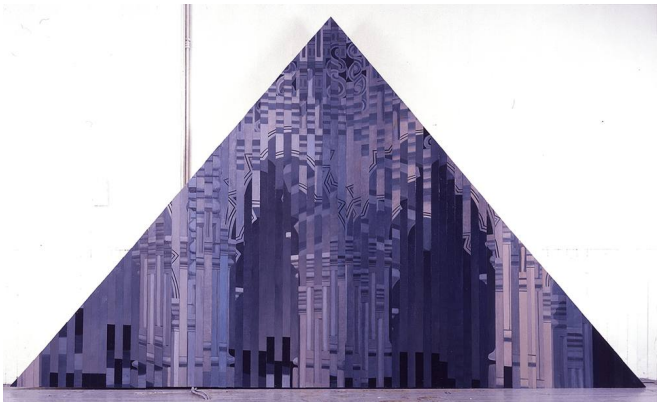
Three-triangle painting (can stand as tetrahedral sculpture) based on Balboa Park architecture, San Diego. She learned harpsichord to paint Bach. Stored at Intermedia Projects; for sale.
Page: https://intermediaprojects.org/pages/J.%20S.%20Bach.html



BachTriangle1



BachTriangle2



BachTriangle3



bach

Debussy — Nuages (1982)

104-by-4-foot painted visualization of Debussy's ten-minute Nuages, originally 27 sections. The site is the only place to see the complete work — sections were lost. Below: the 9 full-size carousel slides, then the section groups and working charts.

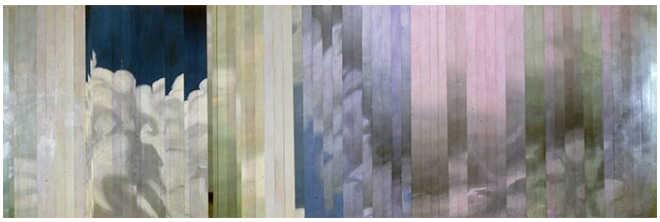
Page: https://intermediaprojects.org/pages/Debussy7.html



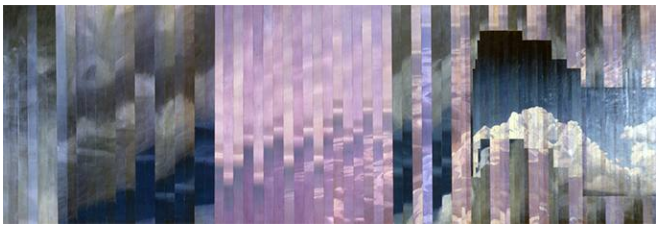
Carousel slide 1 — the 104-foot painting



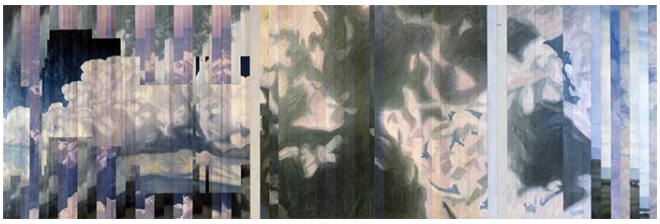
Carousel slide 2 — the 104-foot painting



Carousel slide 3 — the 104-foot painting



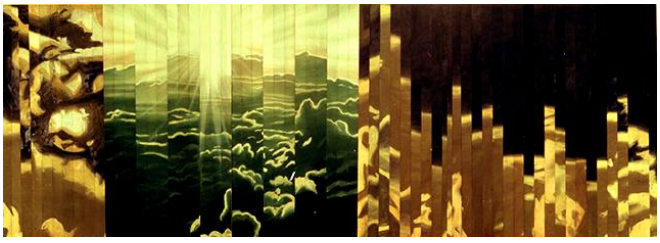
Carousel slide 4 — the 104-foot painting



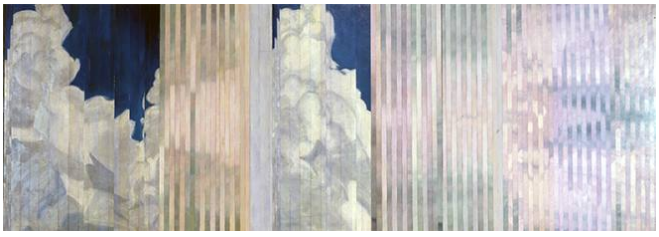
Carousel slide 5 — the 104-foot painting



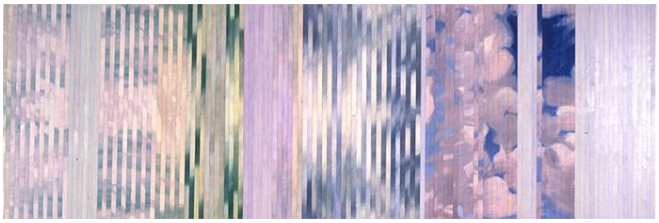
Carousel slide 6 — the 104-foot painting



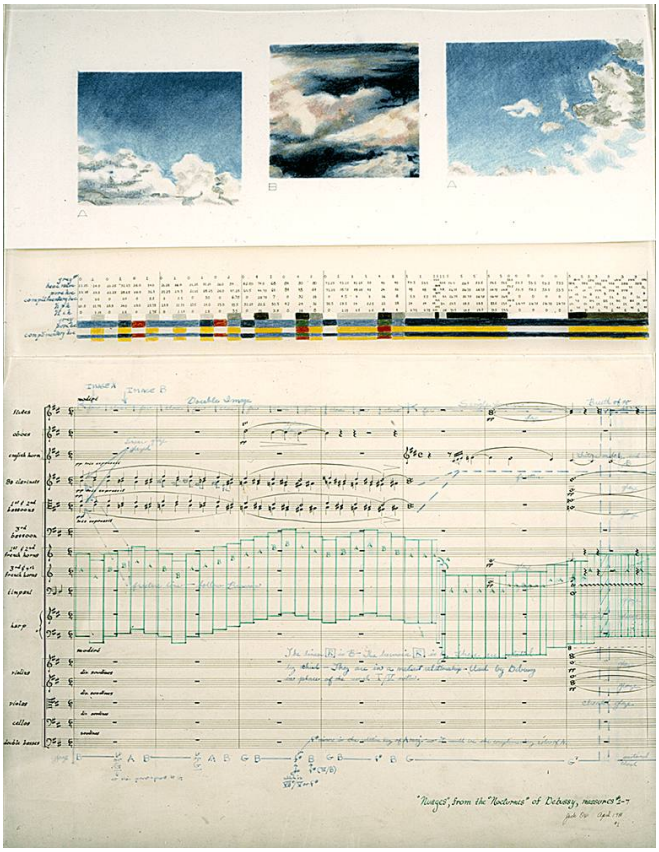
Carousel slide 7 — the 104-foot painting



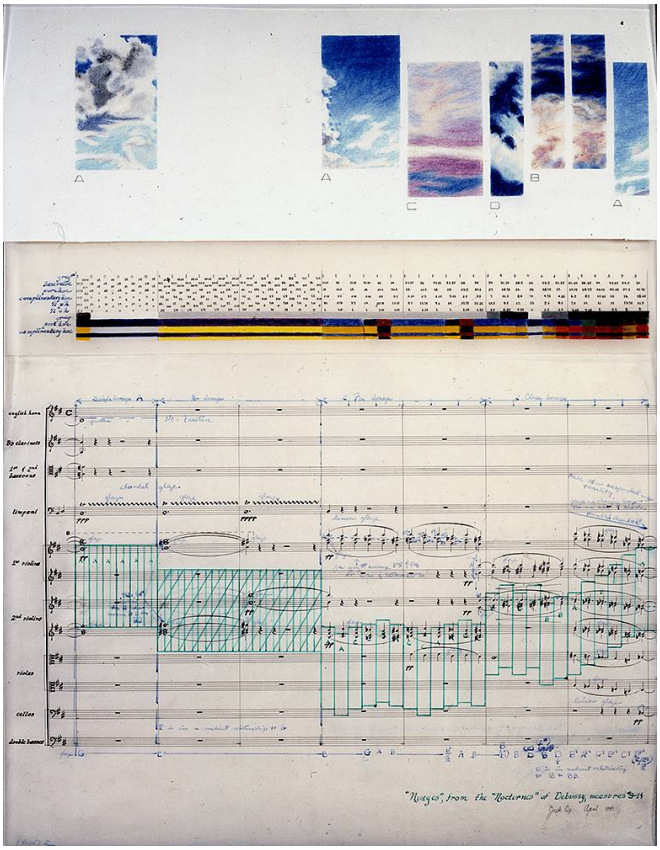
Carousel slide 8 — the 104-foot painting



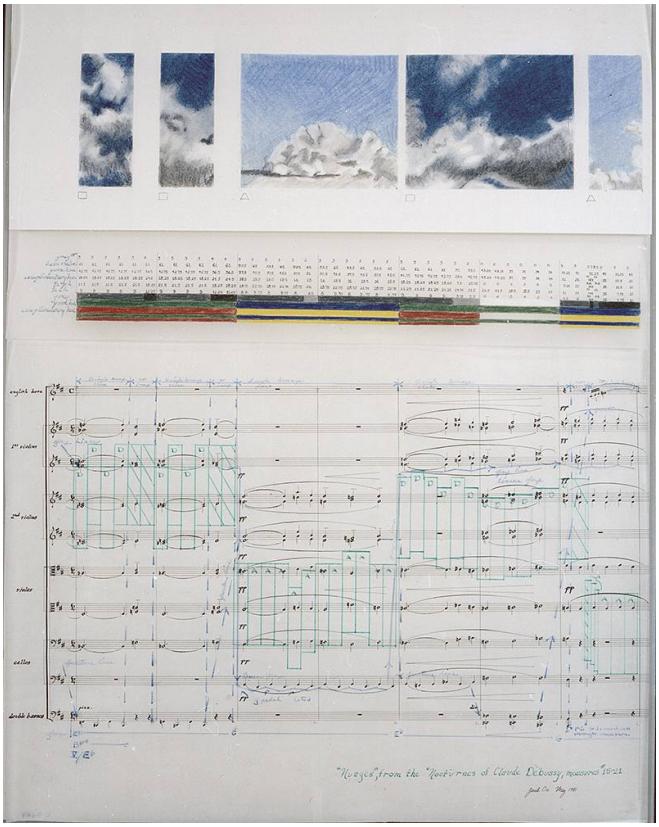
Carousel slide 9 — the 104-foot painting



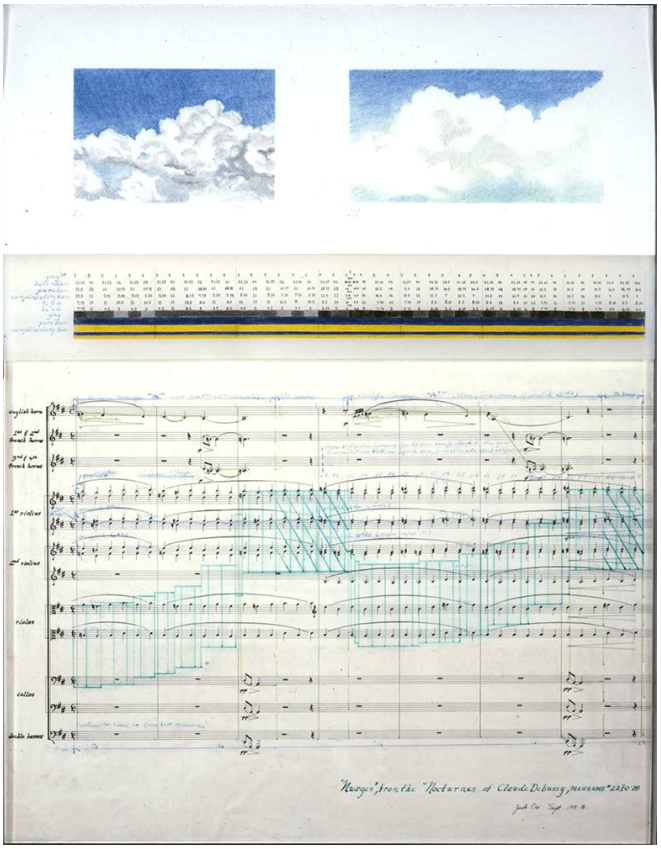
Panel, measures 1–7 (higher resolution)



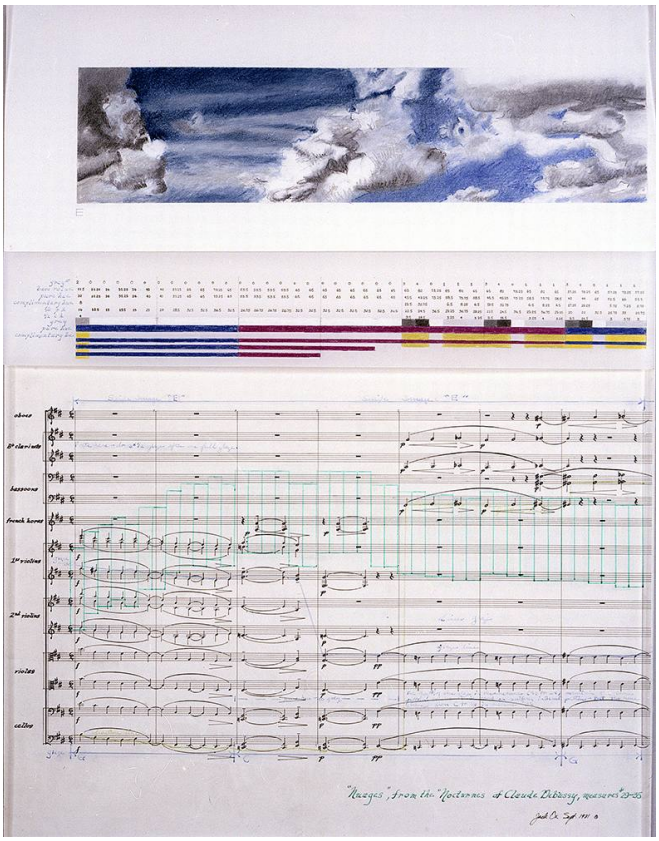
Panel, measures 8–14 (higher resolution)



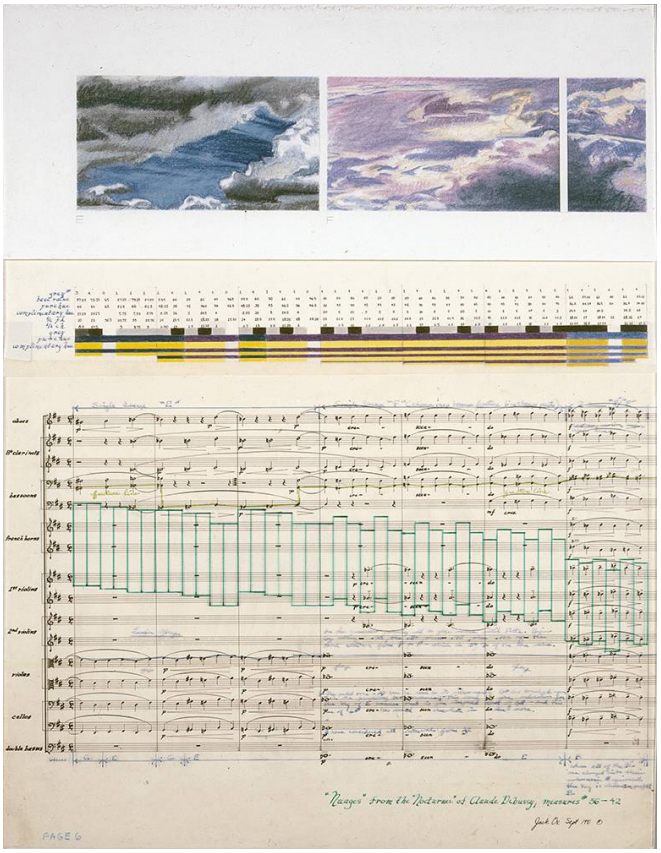
Panel, measures 15–21 (higher resolution)



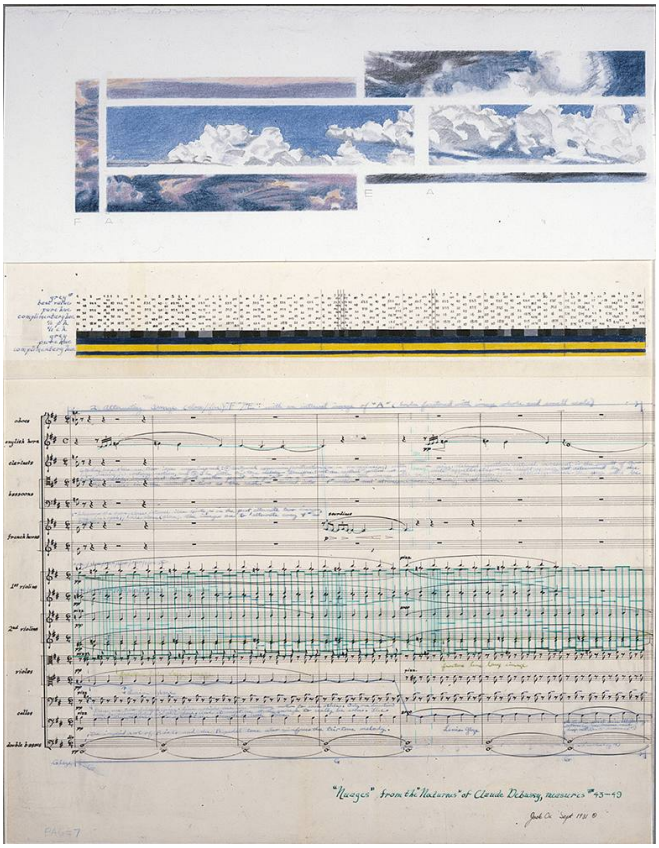
Panel, measures 22–28 (higher resolution)



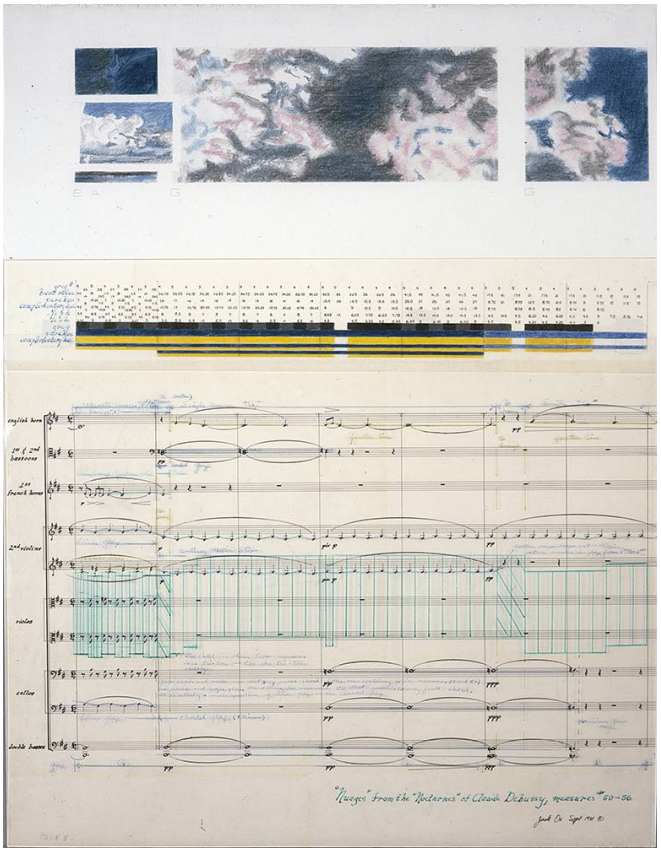
Panel, measures 29–35 (higher resolution)



Panel, measures 36–42 (higher resolution)



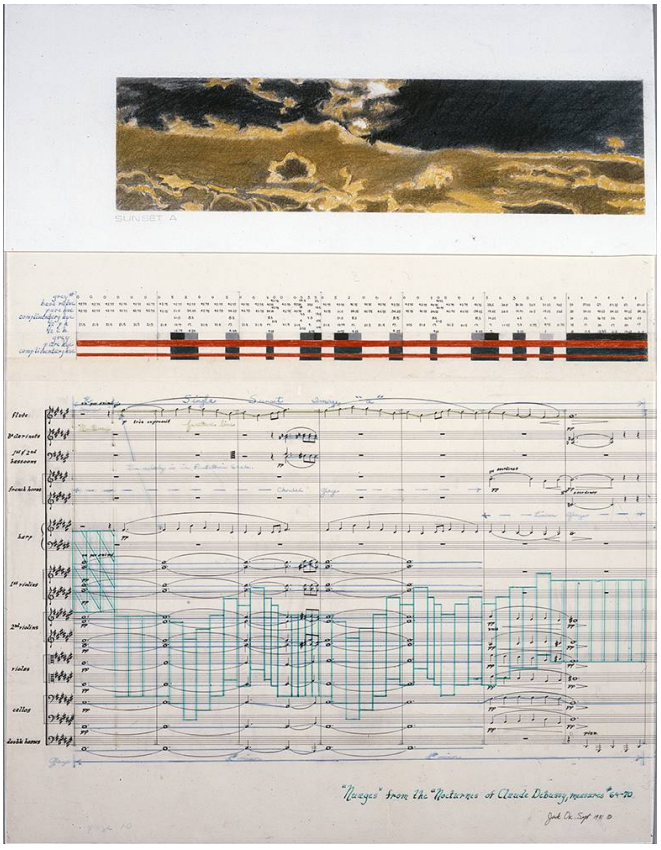
Panel, measures 43–49 (higher resolution)



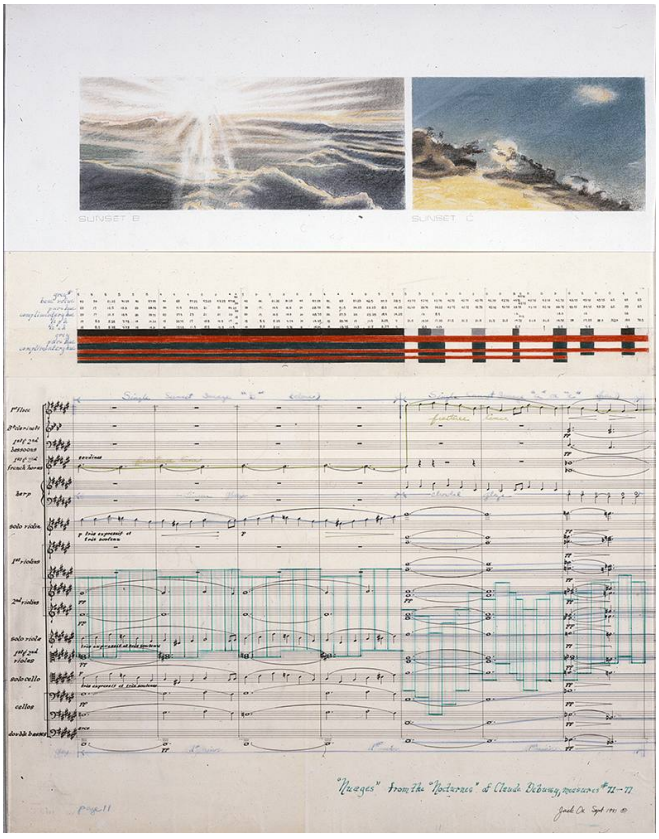
Panel, measures 50–56 (higher resolution)



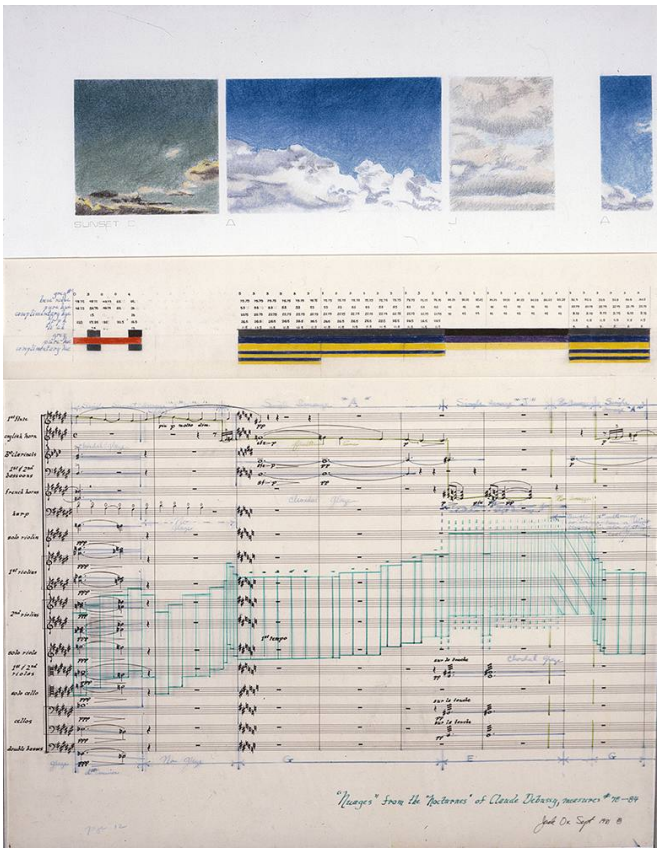
Panel, measures 57–63 (higher resolution)



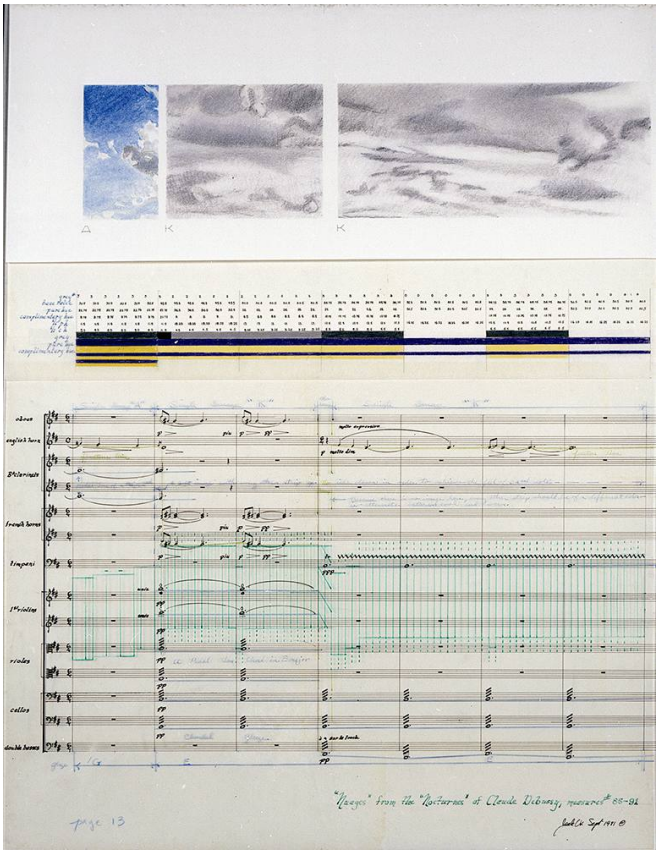
Panel, measures 64–70 (higher resolution)



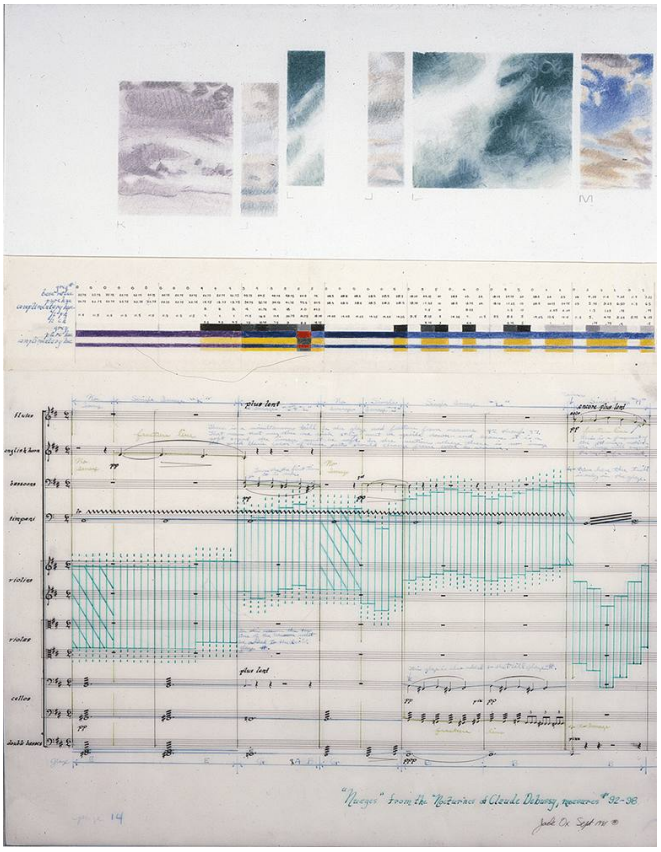
Panel, measures 71–77 (higher resolution)

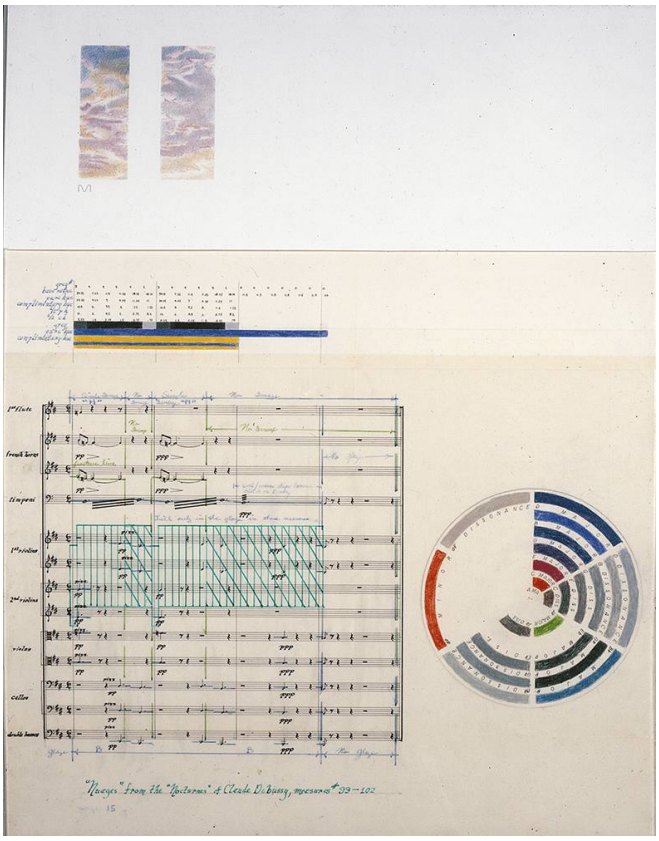


Panel, measures 78–84 (higher resolution)

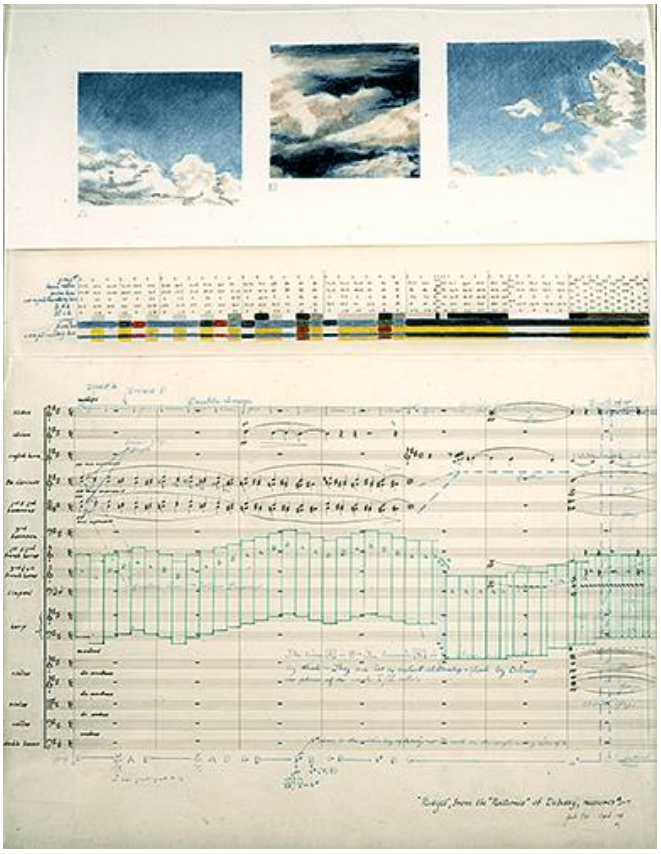


Panel, measures 85–91 (higher resolution)





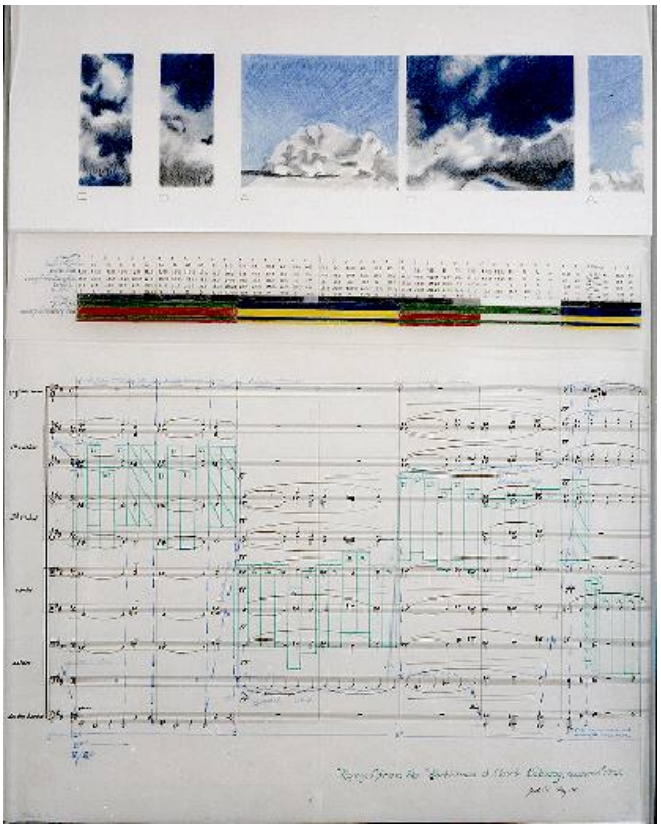
Panel, measures 92–98 (higher resolution)



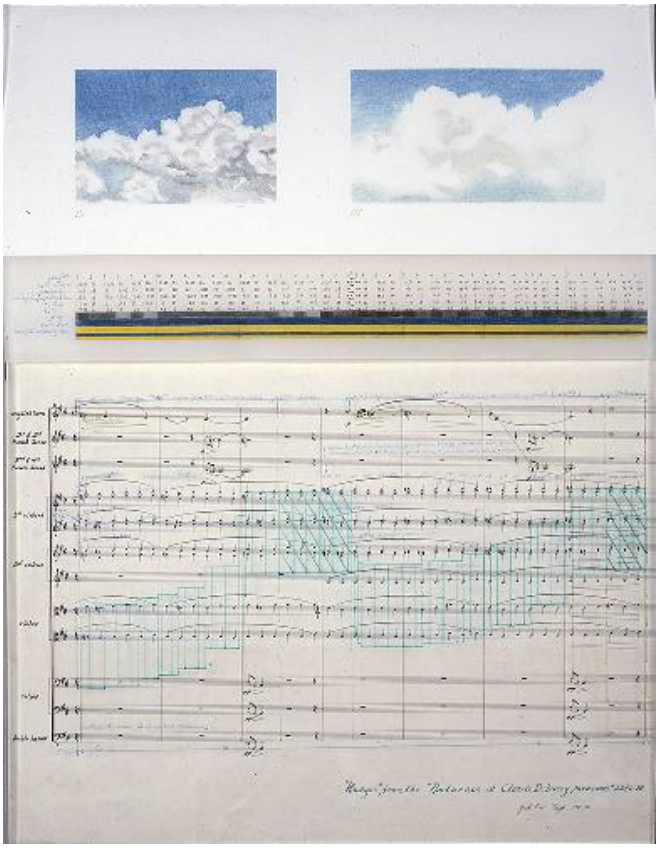
Panel, measures 99–102 (higher resolution)



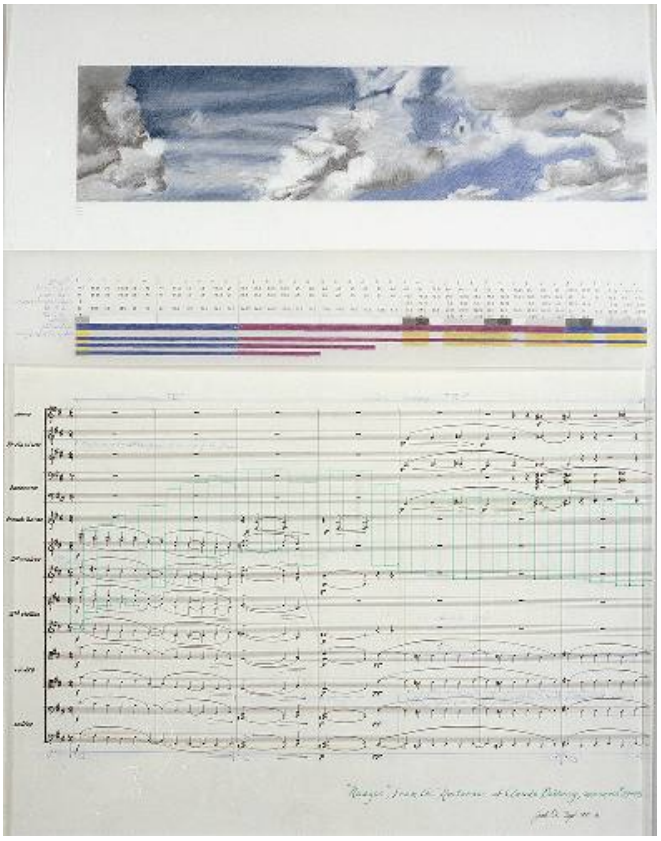
Sections, measures 1–7



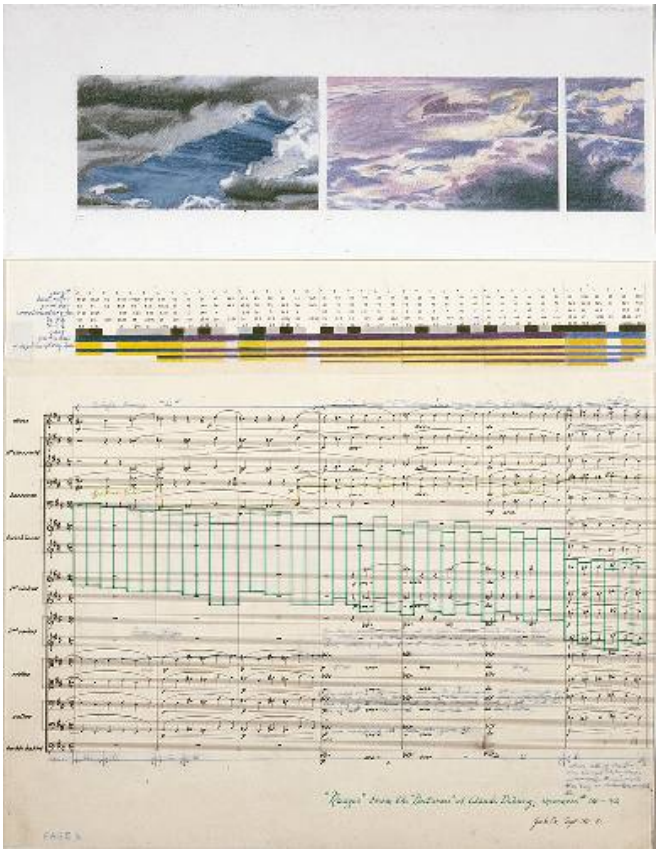
Sections, measures 8–14



Sections, measures 15–21

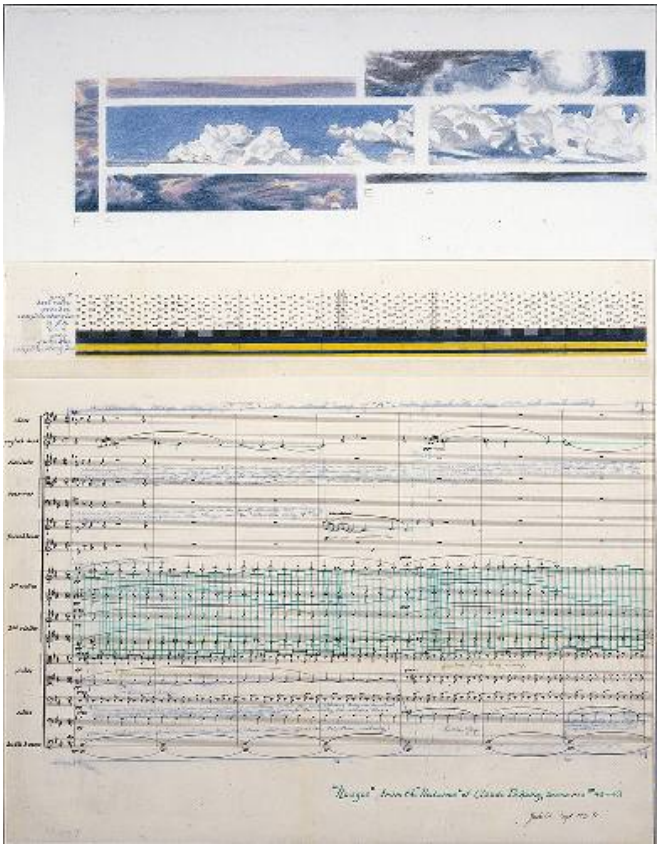


Sections, measures 22–28



Sections, measures 29–35

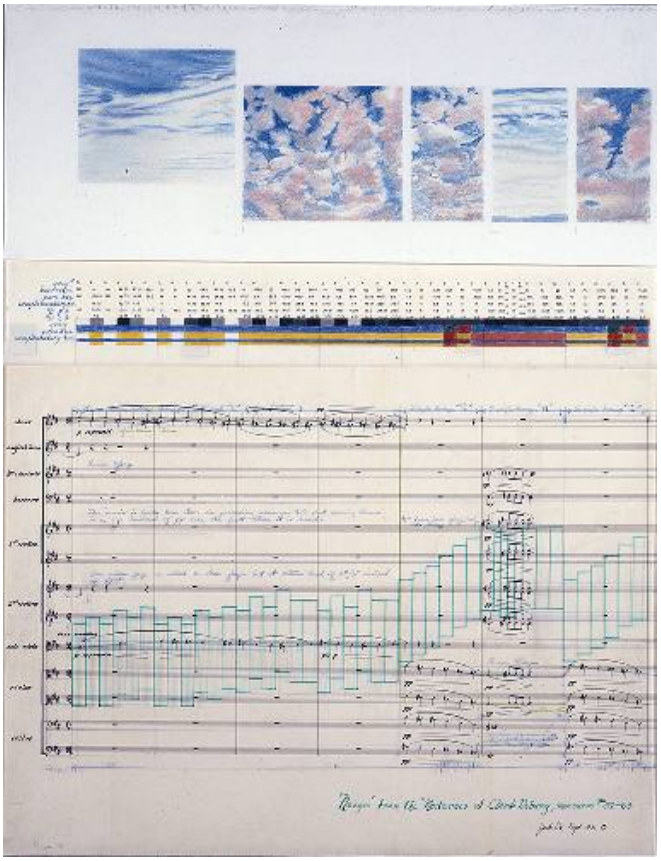
Sections, measures 36–42



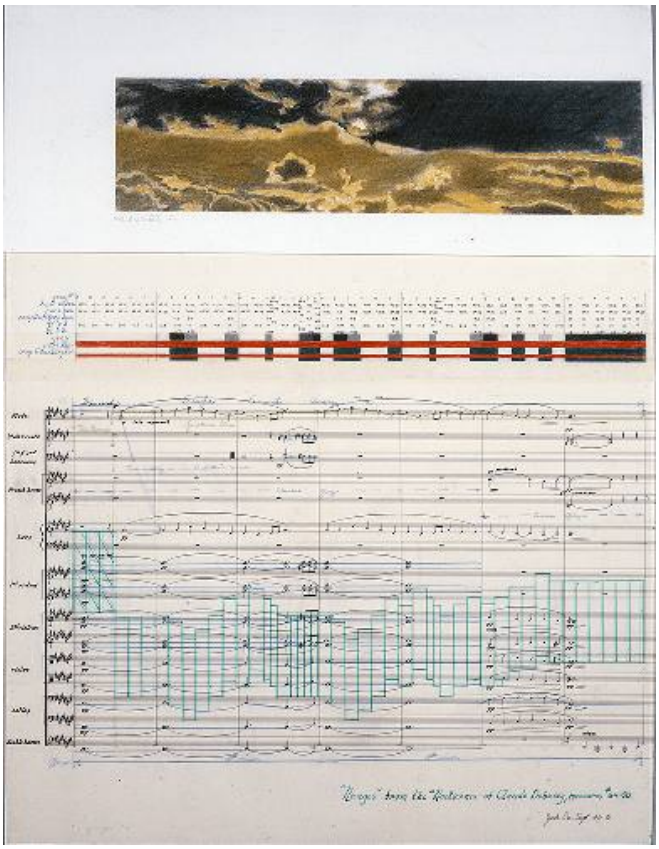
Sections, measures 43–49



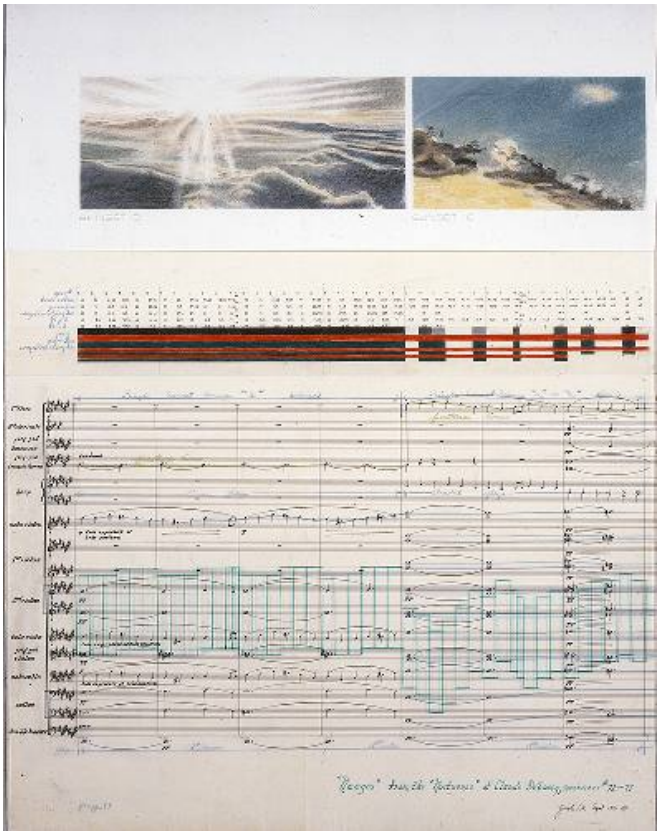
Sections, measures 50–56



Sections, measures 57–63



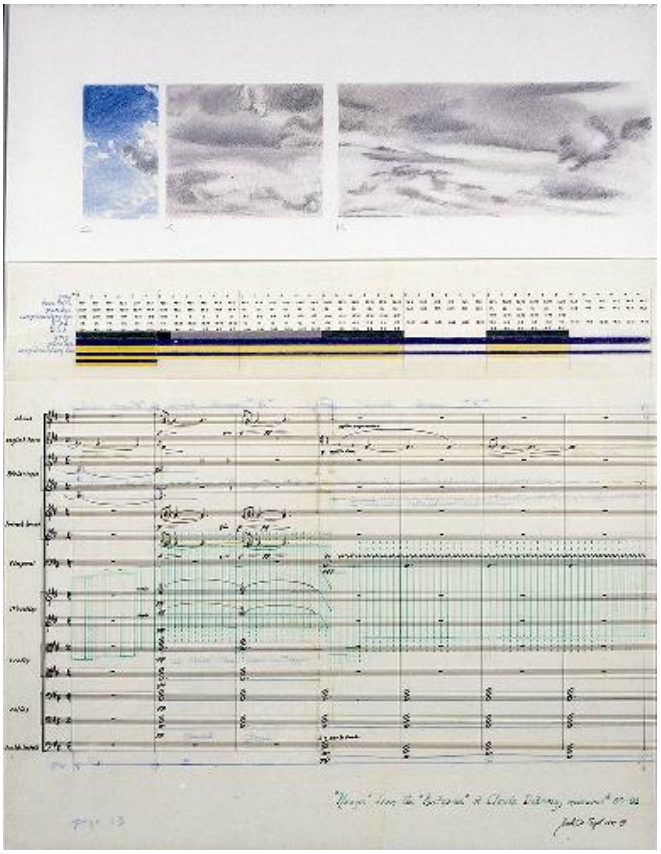
Sections, measures 64–70



Sections, measures 71–77



Sections, measures 78–84

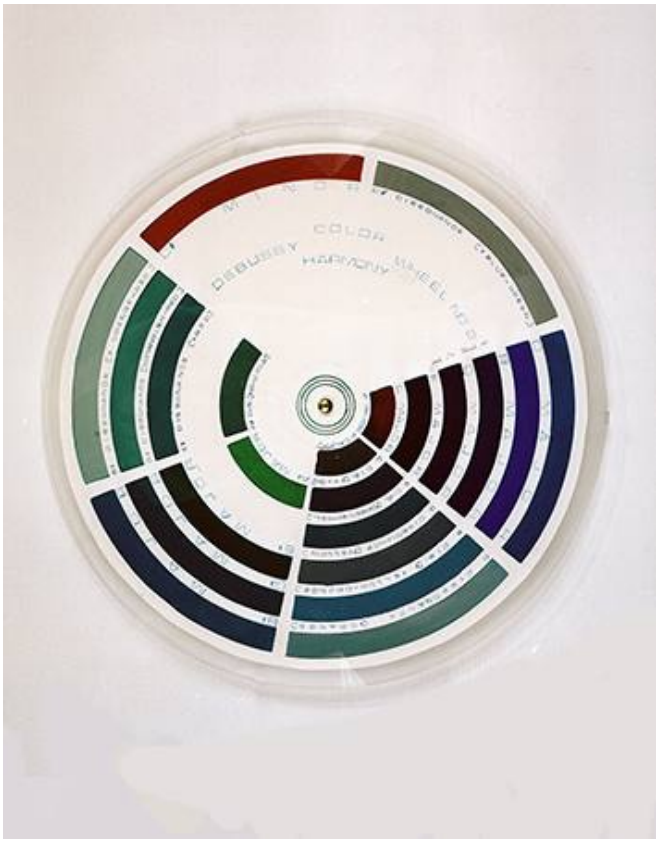




Sections, measures 85–91



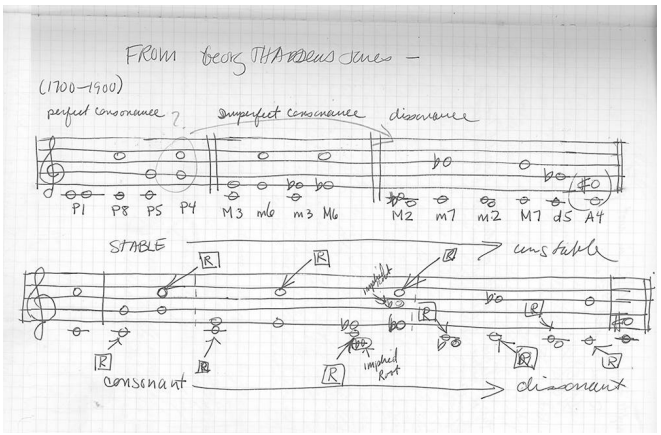
Sections, measures 92–98



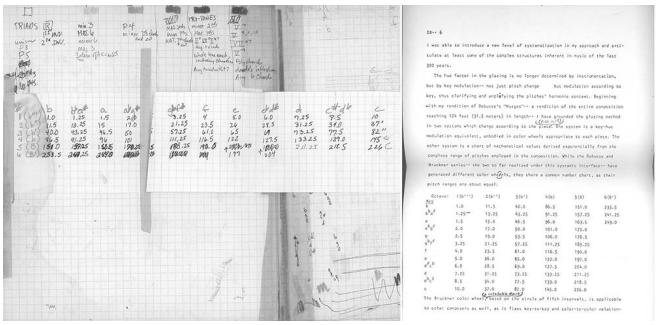
Sections, measures 99–102

Color wheel — Debussy's harmonic system (fourths, not fifths)

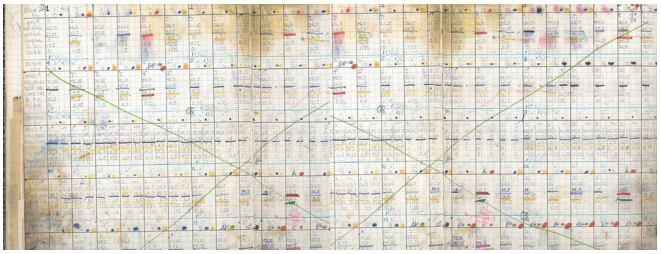
Dissonance/consonance research



Value numbers



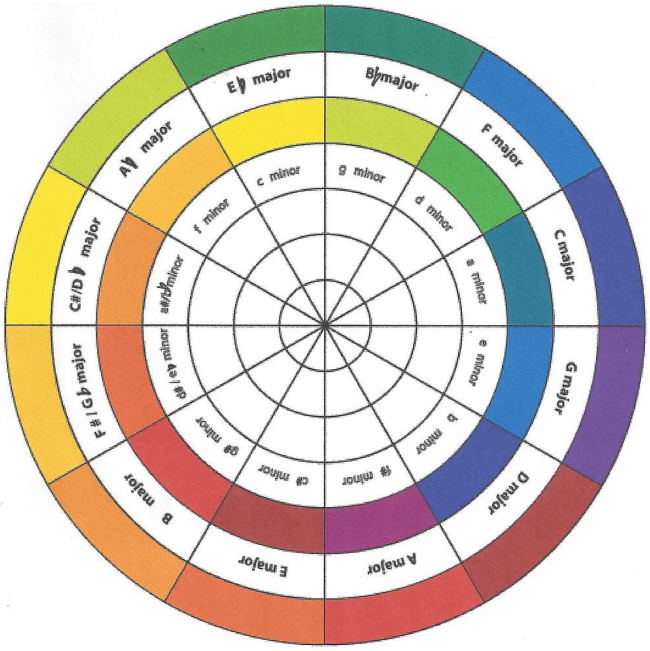
Glaze working chart



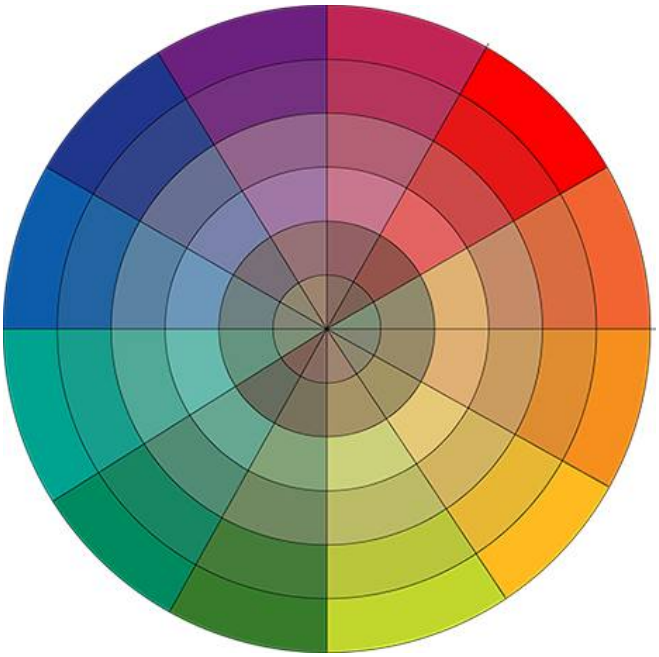
Bruckner — Eighth Symphony, 12 paintings (1981–1991)

Ten years mapping all themes of Bruckner's Eighth; shown complete at the Neue Galerie der Stadt Linz, 1996. St. Florian's monastery and Alpine imagery.

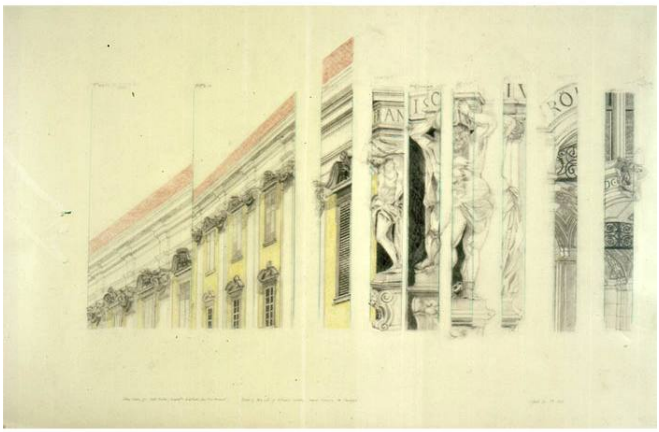
Page: https://intermediaprojects.org/pages/Bruckner.html



The last painting available from the series — Bruckner's Eighth Symphony themes, ©1991



Bruckner Color Wheel



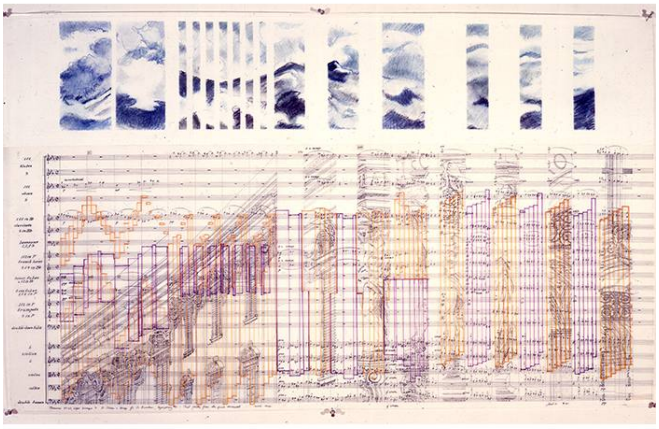
Consonance-Dissonance Wheel



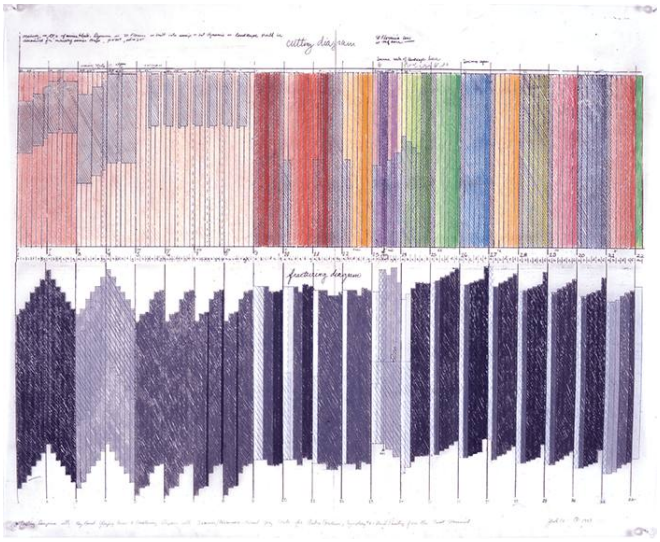
St Florian's Monastery — scale changes mapped to changing dynamics



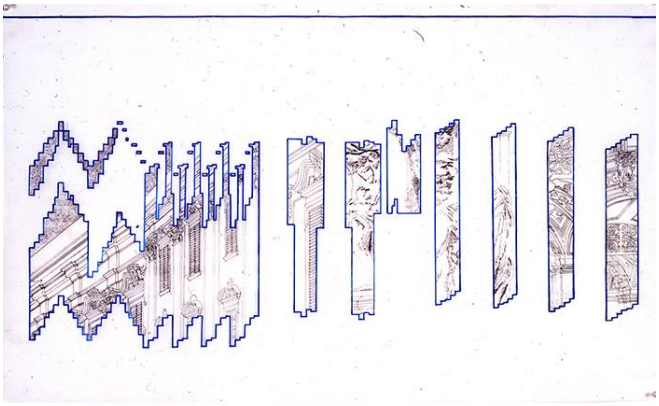
Measures 89–99 of the Bruckner score with St. Florian's architecture



Measures 100–109 of score with St. Florian's architecture



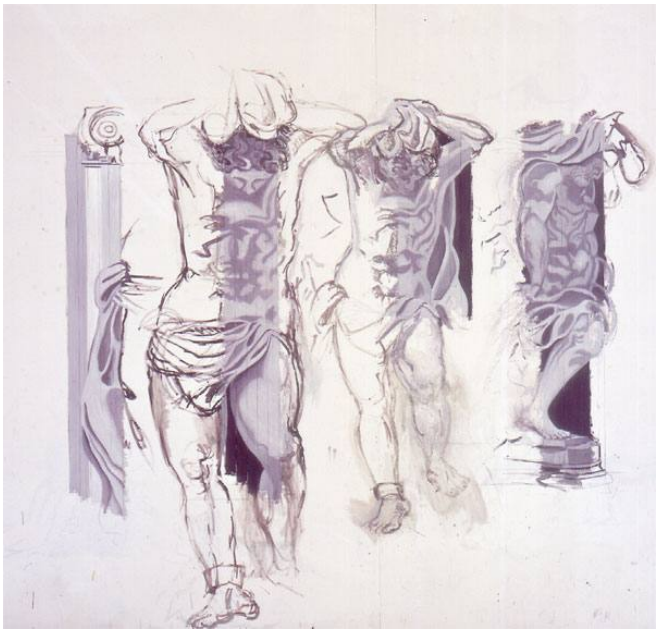
Alpine landscape, St. Florian's architecture, measures 89–109



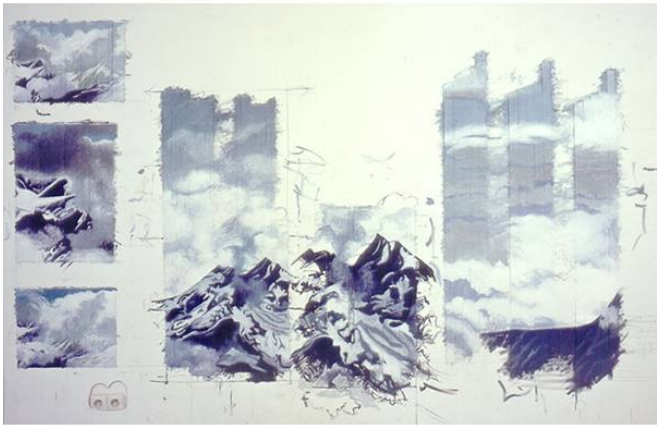
Cutting and fracturing pattern — harmonic hues over consonance/dissonance greys



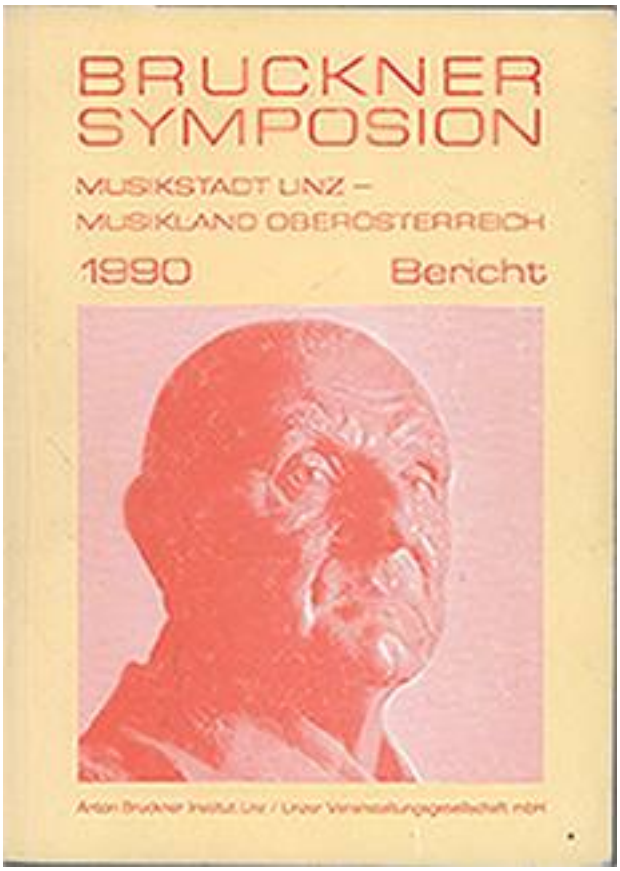
Fracturing pattern of strips on wall, architecture to be painted



St. Florian's monastery painted onto fiberglass strips on the wall



Entrance portal into St. Florian's, painted on wall-mounted strips



Alpine images painted on strips before restructuring

Stravinsky — Symphony in Three Movements, three paintings (1979–1980)

Three paintings, all mapping the first movement of Stravinsky's neo-classical Symphony in Three Movements, made in 1979 just after moving to NYC. Dissonance is bright pure glaze (it never resolves, unlike Bruckner); the very consonant second painting uses greyed chromatic greys. Second painting ~27 ft wide; first painting sold, second and third available.

Page: https://intermediaprojects.org/pages/Stravinsky.html



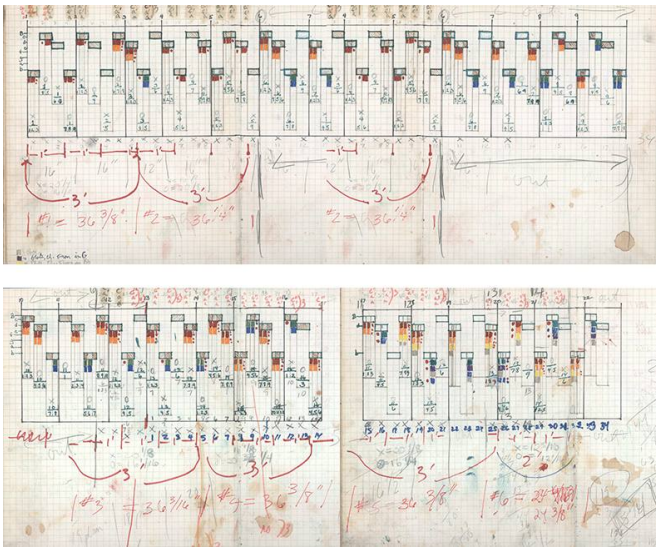
First painting (first movement)



Original NYC building photo, left side



Original NYC building photo, right side



Notebook pages — fracturing patterns



Stravinsky's score, first theme (his third scale)



Second painting, complete — consonant passage, chromatic greys



NYC building, view from the right (french horn lines)



NYC building, center view looking up



NYC building, view from the left looking right



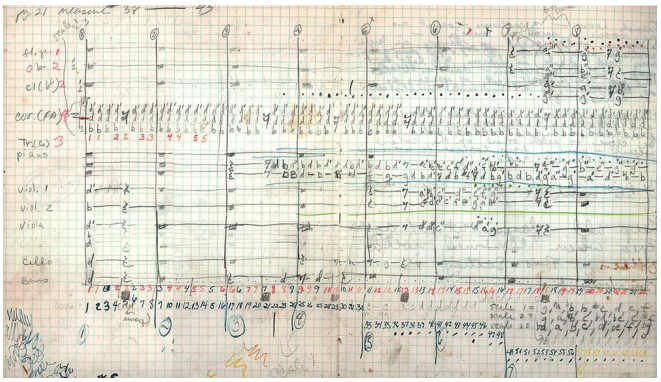
Score, page 21



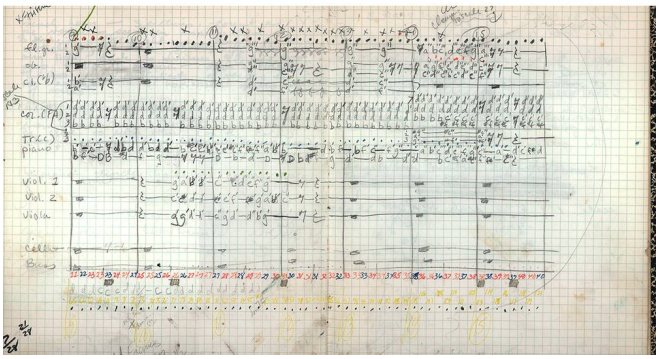
Score, page 22



Score, page 23



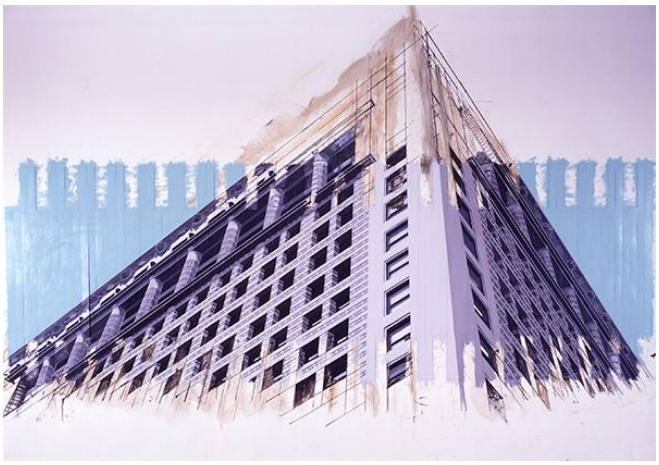
Ox's notebook — second painting score, p.1



Ox's notebook — second painting score, p.3



Third painting — dissonant passage, red-orange glaze



Original image — Chicago building, across from the Art Institute



Score, pages 6-7 (passage starts before rehearsal 5)

Cage — 4'33" (1987)

Visual realization for the Fluxus Museum show at Galerie Inge Baecker, Cologne. Hand-colored edition of 25; non-colored edition of 100.

Page: https://intermediaprojects.org/pages/Cage.html



CageCover1200



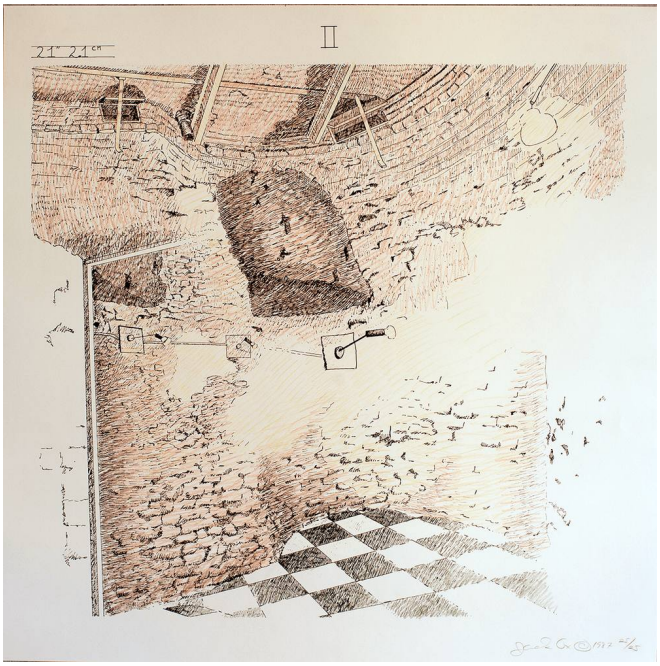
CageEnglish



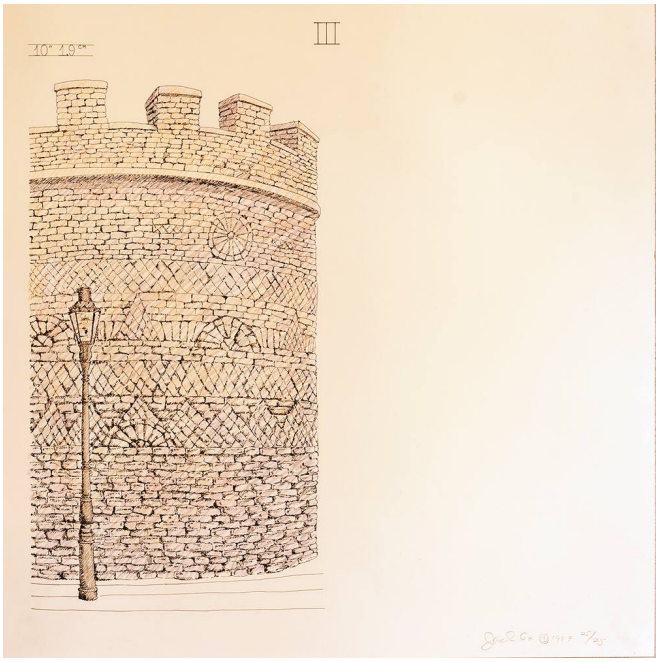
CageGerman



CageMvt1



CageMvt2

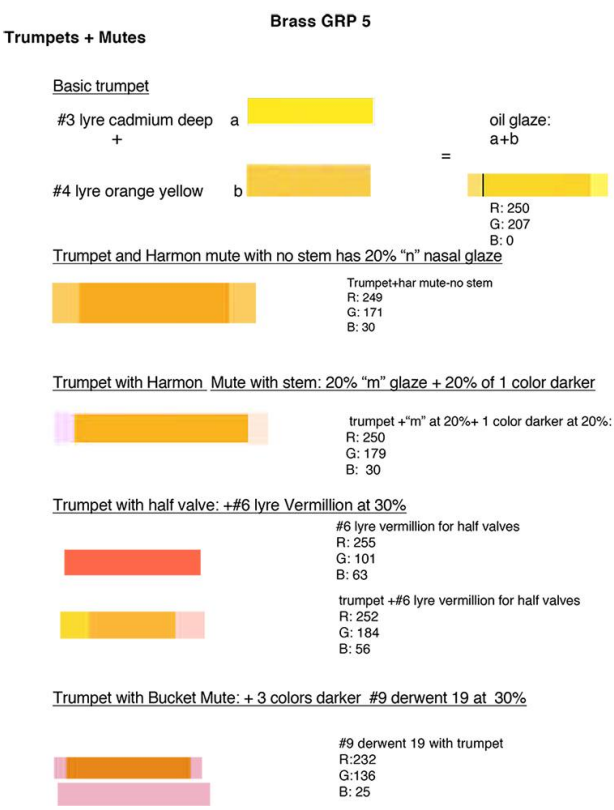


CageMvt3

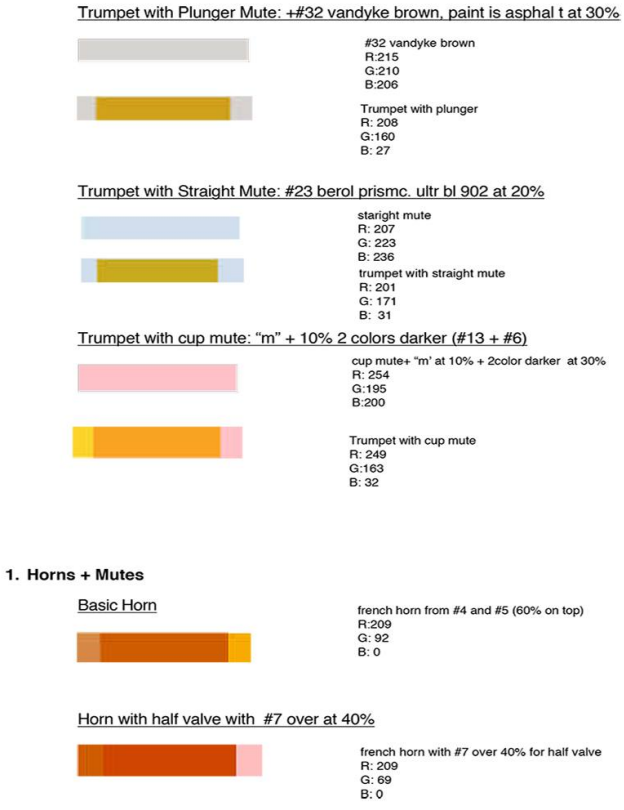
Book of Timbre (1999)

21-page color system for music based on timbre — instrument, technique, vowel formants. Created by Ox for the 2003 Virtual Color Organ (with co-creator Dave Britton and Richard Rodriguez) of Clarence Barlow's 1984 Im Januar am Nil; also used in Gridjam. Inspired by Dary John Mizelle's Quanta and Hymn to Matter.

Page: https://intermediaprojects.org/pages/BookOfTimbre.html



timbrePg1



timbrePg2

Horn with bell in air or bell down (only on unmuted and loudly played) for up add #2 and down add #22



horn unmuted played loudly bell in air #2 %40
R: 218
G: 141
B:0



horn unmuted played loudly bell down + 22 at 40%
R:111
G: 33
B:0

Horn with hand mute + #13 for nasal sound



hand mute at 30% of #13 over Horn
R: 204
G: 64
B: 0

Horn with straight mute + #26 lyra Prussian blue at 20% complimentary over for a bright sound without edge--less resonance-lower overtones are gone



straight mute at 20% of #26 over Horn
R:167
G: 78
B: 0

Horn with harmon mute/no stem #12 + #13 +# 2 at 20% opacity



Horn with harmon mute/no stem "n" + 2 colors lighter over horn
R: 180
G: 115
B:0

Horn with cup mute: #13 + #7 or "m" + 10% 2 colors darker at 30%



horn with cup mute "m" + 2 colors darker at 30%
R: 213
G: 96
B: 43

Horn with plunger mute: #32 at 30% + Horn



horn with plunger mute #32 at 30%
R: 191
G: 101
B: 48

timbrePg3

Trombone and plunger mute: +#32 vandyke brown at 30%



trombone + plunger : #32 at 30%
R: 179
:G 70
B: 45

Trombone with bucket mute: + 3 colors darker, #16 at 30%



trombone with bucket mute: + 3 col darker,#16 30%
R: 173
G: 50
B: 32

Trombone with whisper mute-darker and weaker than straight mute: + #23 prismacolor Ult. 902



trombone/whisper mute: + #23 (ult. blue) at 50%
R: 145
G: 87
B: 74

Tubas + Mutes

Basic Tuba: #7 (lyra Scarlet Red) and #8 (lyra scarlet lake)



basic tuba: #7 and #8
R: 194
G: 11
B: 0

Tuba with felt mute: deadened= loses higher harmonics, add cooler than comp #20 (lyra Juniper green) at 50%



tuba with felt mute: add #20 at 50%
R: 118
G: 9
B: 0

Tuba with straight mute: 20% of #18 (lyra viridian)



tuba with straight mute: #7 + #8 + 20% #18
R: 204
G: 129
B: 109

Tuba with half valve: add 40% #11 (Prismacolor 924 Crimson Red)



tuba with half valve: #7 and #8 + 40% #11
R: 255
G:68
B: 88

timbrePg5

Horn with bucket mute: 3 colors darker at 30% # 8 lyra scarlet lake



horn bucket mute: #8 at 30%
R: 209
G: 72
B: 0

Trombones + Mutes

Basic Trombone



basic trombone #5 lyra light orange + #6 lyra vermillion
R: 209
G:48
B: 8

Trombone and harmon mute with stem: 1 color darker 20% #7 + "m" 20%#13



trombone, harmon with stem: 20% #13"m"+ #7 20%
R: 200
G:8
B: 3

Trombone and harmon mute without stem: "n" at 20% + 2 col liter #3at 20%



trombone, harmon without stem: 20% "n" + #3 at 20%
R: 157
G: 43
B: 0

Trombone with cup mute: "m" #13 at 10% + 2 color darker #9 at 30%



trombone and cup mute: "m" 10% + 2 col dark #9 at 30%
R: 207
G:30
B: 6

Trombone with straight mute: + 20% complimentary= #25



trombone with str. mute: #5 + #6 & 20% comp-#25
R:168
G: 43
B: 7

Trombone bell in stand: + 10% comp= #25 at 10%



trombone bell in stand: 10% #25 (complimentary)
R: 196
G: 75
B: 43

timbrePg4

Strings Group 4

Violins

Violins: #12 (derwent 48 may green)

violin: #12
R: 174
G: 255
B: 0

Violin sul pont.: add #1 (lyra zinc yellow) at 30 %

violin sul pont: #12 + #1 at 30%
R:198
G: 252
B: 1

Violin with sul tasto : add #17 (Karismacolor True Green) at 30%



violin sul tasto: #12 + #17 at 30%
R: 138
G: 252
B: 1

Violin with mute: add 30% #20 (lyra juniper green)



violin with mute: #12 + #20 at 30%
R: 151
G: 221
B: 1

Violin with natural harmonics: #13 (complimentary color of #12 violin) at 30%



violin with natural harmonics: 30% #13 on #12
R: 193
G: 176
B: 1

Violin with open strings: add 20 % #5



violin with open strings: add 20% #5 (lyra light or) to #12
R:193
G: 223
B: 1

Violins with crush tone: add #32 (lyra van dyke brown) at 40 %



violins #13 with crush tone + 40% #32
R: 167
G:195
B:83

Violins with col legno battuto (clb.) and cl t, or col legno tratto: + 40% #36(lyre burnt ochre)



violins #13 with clb. or clt.+ 40% #36
R: 186
G: 185
B: 50

timbrePg6

Violins played pizz. add 30%#21(lyra bordeaux to darken the color



violins #13 played pizz: + 30% #21
R: 154
G: 178
B: 0

Violas

Violas are #17 (derwent 46 Emerald Green)



viola #17 (karisma true green)
R: 0
G: 254
B: 51

Viola with sul pont.: Add 30% #31 (karisma yellow Brice) over #17



viola #17 with sul pont.+ 30% of #31(karisma yel brice)
R: 109
G: 249
B: 4

Viola with sul tasto: Add 30% of #10 (derwent jade green) over #17



viola #17with sul tasto + 30% of #10 (derwent jade green)
R: 30
G: 249
B: 100

Viola with mute: add 30% of#25 (lyra peacock blue53) over #17



viola #17 with mute + 30% of #25 (lya peacock blue)
R: 0
G: 198
B: 43

Viola with natural harmonics: #17 + #9 (derwent 19) at 30%



viola #17 + 30% of #9 for natural harmonic
R: 109
G: 172
B: 3

Viola with crush tone:add #32 (lyra v. dyke br) at 40%



violo #17 with crush tone + #32 at 40%
R: 128
G: 194
B: 132

Viola with clb. and clt.:#17 + 40% #36 (lyra burnt ochre)



viola #17 with clb. adn clt. : + #36 at 40%
R: 146
G: 185
B: 98

Viola with pizzicato: #17 + 40% #21(lyra Bordeaux



viola #17 played pizzicato
R: 0
G: 152
B: 35

Cellos

Cellos: #10 (derwent 41 jade green



cello is #10 (derwent 41 jade green)
R: 49
G: 249
B: 177

Cello with sul pont.: add #12 (derwent 48 may green) at 30%



cello #10 sul pont. + #12 at 30%
R: 44
G: 249
B: 124

Cello with sul tasto: add #25 (lyra peacock blue) at 30%



cello #10 with sul tasto: + #25 at 30%
R: 35
G: 207
B: 157

Cello with mute: add 40% of #26(lyra prussian blue)



cello #10 with mute: + #26(lyra prussian blue)
R: 32
G: 183
B: 162

Cello with natural harmonics:add #8 (lyra scarlet lake) at 40%



cello #10 with nat. harmonics: + #8 (lyra scar lk)30%
R: 49
G: 176
B: 119

Cellos with crush tone: add #32 (lyra van dyke br) at 40%



cello #10 with crush tone: + #32(lyra v. dyke br)40%
R: 90
G: 191
B: 148

Cellos with clb. and clt.: add #36(lyre burnt ochre) at 40%



cello #10 with clb. or clt.: + 36 at 40%
R: 109
G: 182
B: 114

Cellos played pizzicato: add to #10(dewent 41 jade green) 40% of #21



cello #10(derwent jade) pizzicato+ 30% #21
R: 42
G: 149
B: 123

Contrabasses

Contrabasses are #25 (lyra peacock blue) and #26 at 50% each



contrabass =50% each #25 and #26
R: 20
G: 69
B: 155

Contrabass with sul pont.: Add 40% #17 (derwent 46 emerald green)



contrabass #25-26 and sul pont.: + 30%#17
R: 23
G: 110
B: 121

Contrabass with sul tasto: Add 30% #23(prismacolor Ult. 902)



contrabass #25-26 sul tasto: + #23 (prism Ult. 902)
R: 14
G: 48
B: 142

Contrabass with mute : Add 30% #22(lyra blue-violet)



contrabass #25-26 with mute: + 30% #23(ult.)
R: 16
G: 48
B: 155

Contrabass with natural harmonics: Add 30% #5 (lyra light orange)



contrabass #25-26 with nat. harmonics: + #30% #5
R: 0
G: 70
B: 104

Contrabass with crush tone: Add #32 (lyra v. dyke br) at50%



contrabass #25-26 with crush tone: + 50% #32
R: 93
G: 119
B: 135

Contrabass with clb. and clt.: Add 50% # 36(lyra burnt ochre)



contrabass #25-26 with clb. and clt. + 50% #36
R: 116
G: 107
B: 93

Contrabass with all pizz(thumb or snap pizz).: Add40% #21



contrabass #25-26 with thumb or snap pizz. + 40% #21
R: 0
G: 52
B: 103

Woodwinds Group 2

Piccolo

Piccolo: #31 (lkarisma yellow brice)

piccolo is #31 (karisma yellow brice)
R: 219
G: 250
B: 6

Flutes

Flute: #2 (lyra light chrome)

flute is #2 (lyra light Chrome)
R: 255
G: 251
B: 0

Alto Flute: #2 at40% over #12 at 100 %

alto flute is mixture of #2 (lyra light Chrome) and #12
R: 196
G: 251
B: 0

Bass Flute: #2 at 80% over 60%#17



bass flute is mixture of #2 over #17
R: 89
G: 250
B: 0

Oboe

Oboe is #12 (derwent 48 may green) with #11 (Prismacolor 924) on top at 20%



oboe: #12 (may gr) under 20% #11(crimson red)
R: 174
G: 208
B: 0

Oboe into stand (darker & duller) add #16 at 30 % on top



Oboe #11&#12 into stand + #16 at 30% on top
R: 199
G: 182
B: 121

Oboe into knee (darker and muted) add #10 at 20% on top



oboe #11-12 into knee: + #10 at 20% on top
R: 181
G: 216
B: 19

English Horn

English Horn is #13 (derwent magenta 22) with #12 (derwent 48 may gr) at40 %



english horn is #13 under and #12 at 40% over
R: 195
G: 0
B: 122

Clarinets

Clarinet is #17 (Berol true green) with 40% # 16 (lyra dark violet) on top



clarinet is #17 under and #16 at 40% on top
R: 60
G: 153
B: 116

Soprano Clarinet is #13at 30% (derwent mag 22) with # 14 (lyra light green) at 100% on top



soprano clarinet eflat: #13 at 30% under, #14 100% on top
R: 131
G: 178
B: 72

Alto Clarinet #20 (lyra juniper Green) under and #21 (lyra bordeux) over



alto clarinet:#20 under and #21 over
R: 129
G: 51
B: 67

Bass Clarinet #19 (lyra Mag) under w/#18(lyra viridian) at 30%over



Bass clarinet : #9 under #18 at 30%over
R: 36
G: 92
B: 145

Bassoon has #22(lyra blue violet 75%) under #3(lyra cad yel dp 40%) over



Bassoon has #22 at 75%under #3 at 40% over
R: 77
G: 0
B: 32

Contra Bassoon has #23(Prismacolor Ult. bl) under and #4 (lyra or. yel) at 40% over



Contra Bassoon has #23 under 40% #4
R: 0
G: 0
B: 76

Soprano Saxophone is full strength #3 [ly cad ye-dp] + 30% #22 [ly bl-violet]



Sop.Sax=100%#3[ly cad dp ye]+30%#22[lybl-vio]
R: 192
G: 163
B: 34

Saxophone is #22 (lyra bl vio) and #4 (lyra Or-yel) and #5(lyra lite or)



Saxophone has #22 with #4&5
R: 165
G: 64
B: 0

Vocals Group 1

I have considered the various voice levels, baritone, soprano, etc. as a pitch issue. Because the mouth chamber changes its very shape through vowel production, I have made the **vocal timbre** reflect vowel changes, based on the **vowel color chart** in notes. Following are color mixing of all vowels and their permutation with events like a vocal crush tone.

un-rounded vowels



"i" as in beat is made from #31(yellow brice)

"i" as in beat is made from #31 (yellow brice)
R: 236
G: 250
B: 6



"i" with #32(lyra van dyke brown) at 20 % for tensed octave over #31

tensed octave and i--ad 20% over #31
R: 215
G: 225
B: 120



"I as in bit is made from #2 & #3(lt. chrome + canary yel) with 10% layer over of #16 (lyra dk. violet)

as in bit and is made from #2 & #3 +10% layer over of #16
R: 246
G: 236
B: 64



"I with tensed octave; 20% #32(lyra v. dyke br) over #31



I with tensed octave-20% #32 over #2,3,17
R: 222
G: 202
B: 100



as in baby (first syl)and is made from #4(lyra orange-yel)



as in baby and is made from #4
R: 248
G: 171
B: 0



e with tensed octve: 20% #32 (lyra v. dyke br) over #4(lyra or-yel), like in a crushed tone



e with tensed octave: 20% #32 over #4
R: 219
G: 191
B: 71



Vowel "ə" as in above(first syl) 80%#5 (lyra light orange) + 20%#26 (lyra Prussian blue)



Vowel "ə"above #5 (lyra light orange) with #26 20%
R: 163
G: 78
B: 0



above w/ tensed octave: 40% #32 (lyr v. dyke br) over #5&#26 (lyra lt.or)



Vowel "ə"above with tensed octave #5+26 under +40% #32 over
R: 176
G: 129
B: 92



Vowel "ər"as in onward (2nd syl) 70%#5 (lyra lt.or) under with 30% #26(lyra Prussian Blue) over(mid mouth)



Vowel "ər"#5 under with 30% #26 over(mid mouth vowel
R: 144
G: 71
B: 0



Vowel "ər"with tensed octave under with 40% of #32 over



Vowel "ər" under (#5 + 30%26) with tensed octave+40% 32 over R: 174
G: 142
B: 133



ɛ as in bet and is made from #6(lyra vermillion) and #38(lyra dk. or)



ɛ as in bet: #6(lyra verm) + #38(l dk or)
R: 254
G: 89
B: 33



ɛ as in bet #6 and #38 with tensed octave + 40% #32 over



ɛ as in bet #6+#38 with tensed octave: + 40% #32
R: 201
G: 114
B: 82



"ɛr"as in word:70% [#6+#38]+ 30% #42 (lyra emerald green)



"ɛr"as in word: #6+#38 + 30% #42
R: 177
G: 136
B: 76



"ɛr"as word with #6+#8+30% #42 with tensed octave: +40% #32 over



"ɛr"as in word (#6,8,&42) + 40% #32 for tensed octave
R: 166
G: 124
B: 85



æ as in map is made from #8 (lyra scarlet lake)



æ as in map is made from #8 (lyra scarlet lake)
R: 255
G: 69
B: 48

æ(#8) with tensed octave: + 50% #32

æ made from #8 with with tensed octave:+50% #32
R: 188
G: 104
B: 89

ʌ as in but is made from 80% #8 (lyra scarlet lake) and 20% #18 (lyra viridian)

ʌ as in but : #8 and 20% #18(viridian) over
R: 178
G: 61
B: 41

"ʌ" as in but (#8+20% #18) with tensed octave: 50% #32

"ʌ "as in but (#8+20%18) with tensed oct: +50% #32
R: 162
G: 119
B: 100

"a" as in bow(1st part of dipt.)90% #30 (lyta lt. carmine) and 10% #17 (karisma true green)

"a "as bau #30 (lyra lt. carm) + 20% #17 (kar. true gr)
R: 198
G: 1
B: 79

"a "as in bow (#30 +17) with tensed octave: +%50% #32

"a" as in bow (#30 +17) w/tensed oct: + 50%#32
R: 174
G: 177
B: 100

Rounded Vowels



"u" as in fool: 50%[#14(l lt gr)+#31(yel.brice)] + 50% #21(lyra bordeaux)

"u"=50%[#14+#31]+10% #21(under)
R: 160
G:153
B: 3



"u" w/ tensed octave: #14+#31+#21and 30%#32(lyra v dyke br)

"u" w/ tensed octave(#14,31,21) + 30% #32 over
R: 193
G: 155
B: 21



"Y" as in fümms: 90% #42 (lyra emerald gr+ 10% #8 Scarlet lake)

"Y" =90% #42 (ly em gr)+10% #8 (Scar lk)
R: 0
G: 158
B: 98



"U" as in full: 60%#42(lyra emeral green+ 40% #8(lyra Scarlet lake)

"U"=60%#42+40%#8(lyra scarlet lake)
R: 79
G: 100
B: 39



"U"with tensed octave: #42+#8 and 40% #32 over

"U" & tensed octave (#42,8) with 40%#32 over
R: 134
G: 145
B: 108



vowel "O" is 50% #6(lyra vermillion)under with 50% #18(lyra viridian) over

"O"= 50% #6(lyra vermillion) under 50% #18
R: 23
G: 87
B: 57



Vowel "O" (#6,#18) with tensed octave: 50% #32(lyra v. dy.br) over

vowel "O" (#6, 18)with tensed oct: +50% #32 over
R: 110
G: 120
B: 100



Vowel " ɔ" as in hot is 50% #44(lyra deep cobalt) with 50% #4(lyra or-yel)

Vowel " ɔ" 50% #44 and 50% #4 (lyra or-yel)
R: 82
G: 88
B: 125

timbrePg15



Vowel " ɔ" as in hot(#44 and #4)with tensed octave" 50% #32 over

Vowel " ɔ" 50% #44 and 50% #4 w/tensed oc: +50% #32
R: 121
G: 105
B: 94



Vowel "œ" as in Töne #22 [lyra Blue-violet] + 10% #4 {lyra or-yel}

vowel "œ" 90% #22 _ 10% #4
R: 66
G: 0
B: 181



Vowel "ɑ" as in calm with 50% #16(lyra dark violet) and 50% #2 (lyra light chrome)

vowel "ɑ" is 50% #16 and 50% #2(lyra light chriome)
R: 176
G: 121
B: 0



Vowel "ɑ"(50% #16 and #2) with tensed octave: + 50% #32 over

vowel "ɑ" (50% #16 and 50% #2) w/tensed octave + 50% #32 over
R: 168
G: 145
B: 127

Sonorants (acting as vowels)



Sonorant "m" is #13 (derwent Mag.22)

sonorant "m" is #13 (Derwent Magenta 22)
R: 234
G: 0
B: 255



Sonorant "n" is #13 + 30% #12 (Derwent May Green) over

sonorant "n" is #12 at 30% over #13
R: 217
G: 74
B: 178



Sonorant "N" (ng) is #13 (derwent Mag. 22) + #10 (Derwent Jade Green

vowel N (ng) with #13 Magenta
R: 148
G: 189
B: 216

timbrePg16



Sonorant "l" in the back of the mouth is #5 (lyra light or) under50% #26(lyra pr bl)

sonorant "l" is #5 under 50% #26
R: 100
G: 57
B: 0



Sonorant "J" makes "i" in back of mouth. It is #31 with 50% # 13-mag

Sonorant "J" makes "i" sound in back #31 + #13 at 50%
R: 209
G: 122
B: 0

Wood

Group 4:Bamboo Wind Chimes :pitched= #15 (lyre raw umber)

Bamboo Wind Chimes: #15 (lyra raw umber)
R: 169
G: 88
B: 50

Group 4:Wood Blocks: pitched = #32 (lyre Vandyke Brown

wood blocks: #32
R: 121
G: 62
B: 22

Group 4:Temple Blocks: pitched= #9 at 100% under 60% #32 (lyre v.dyke br)

temple blocks: 100% #9 under 60% #32
R: 154
G: 63
B: 82

Group 5:Marimba: specific pitches-100 #21 (lyra bordeaux) at 60% under % of #32 (lyra v.d.br)

marimba: 100% #21 under 60% #32
R: 136
G: 63
B: 80

Group 5:Xylophone: specific pitches-100 % #13(dewent magenta) and 60% #15(lyre raw umber) over.

xylophone: 100% #13 +60% #15 over
R: 187
G: 0
B: 151

timbrePg17

Skin

Group 3:Tambourine: a light sound-at 8, with pitched jingles (metal) the skin is not pitched, is noise . The skin is #31(Berol Karima ye. rice) and #15(lyre raw umber) and #24(Spectacolor silver)

tambourine is 100%#31 and 30%# 15(lyre raw umber) over silver
R: 210
G: 193
B: 4

Group 4: Snare drum: is a "7" (l/d) and timbre has a high rattle. #14 (lyre light green) and #15 (lyre raw umber) and when a rim shot: over silver metal #24.

snare drum= #14 (l.light gr) and 50% #15 (l raw umber) over silver metal for rim shot
R: 66
G: 171
B: 0

Group 4:Timpani: is a "2" and is 100% #18 (lyre viridian)under + 50% #32 (lyra v.dybr)

timpani= #18(l. viridian) + #32 (l v.dyke br)
R: 0
G: 113
B: 87

Group 4:Bass drum is a N°1" or very dark. Combine 100% #23(prisma ultr. bl) under and 50% #32 (lyre v. dyke br).

bass drum= #23 under 50% #32 (l.v.dykebr)
R: 0
G: 0
B: 129

Metal

Group 6:Glockenspiel l/d N°. 10--lightest of silver instuments. Put #31(karisma yel brice) over a bright silver surface.

glockenspiel has #31(karisma yellow brice
R: 219
G: 250
B: 6

Group 3:Triangle lll/d N°. 9.5 and is pitched=#45 (prisma purple metal) and #46 (lyre ochre)

triangle has #45(Pri-pur-met) + #46(lyra ochre) over silver
R: 163
G: 43
B: 81

Group 3:Crotales L/d N° 8.5 is pitched: #4 (lyra yel-or) and #28 gold

Crotales has #4(lyra or-yellow) over gold metal texture
R: 247
G: 207
B: 70

timbrePg18

Group 3:Kin: pitched is #6 (lyra vermillion) over #40 (prisma metalic copper) or over metalic surface texture map.



Kin is #6(lyra verm) over #40 (prism metallic copper)
R: 213
G: 64
B: 42

Group 3:Kin on head of timpani--with pedal depressed/pressed. There is wawa of expanding lower fundamentals. Must make this wawa.



Kin on head of timpani #21 over metalic copper
R: 137
G: 1
B: 47

Group 6:Tubular Chimes, N°3 on dark, pitched #37 (berol metalic green).



Tubular chimes are #37 berol metalic green
R: 17
G: 208
B: 164

Group 3:Suspended Cymbal, 22"=N°7.5, non-pitched with aperiodic rhythmic units= #34 (lyra brown ochre)+#33(lyra dark flesh) over #28(Prisma gold).



Cymbal 22" = #34(lyra br ochre)+#33(lyra dk fl)over gold
R: 182
G: 94
B: 44

Group 3:TamTam with hard mallet is broad spectrum, low formats, non-pitched= #29(lyra burnt carmine) over #28(prisma gold)



Tam tam w/hard mallet=#29(l. burnt carmine)over #28(prismagold)
R: 166
G: 89
B: 71

Group 3:Tam tam with soft mallet--darker: non-pitched=#29(lyra burnt carmine)+#16(lyra dark violet) over #28(prismagold)



Tam tam soft mallet=#29(burnt car) + #16 (dk violet)over pr-gold
R:135
G: 54
B: 65

Group 3:Tam tam with metal stick--brighter: non-pitched+#29(l burnt carm)+ #3(l cad yel dp)over #28(prismagold)



Tam tim with metal stick #29(lyra burnt carm)+#3(cad. yel dp)over gold
R: 212
G: 157
B: 34

timbrePg19

Grp: 7 Glass Windchimes tinkely-high pitched, bright-metalic:#4 (ly or-yel)+#23



Glass Wind Chimes is #4(ly or ye) + #23 Ult bl
R: 198
G: 141
B: 14

Earth

Group 9:Rocks, non-pitched-- are very dark grey--with no image underneath: #21(lyra bordeaux) and #18 (lyra viridian).



Rocks=#21 (lyra bord) + #18 (lyra viridian)
R: 0
G: 11
B: 5

Group 9:Sand Paper Blocks is #43 (lyra gold ochre)over sandpaper image-even though pitchless



Sand paper blocks have #43 (lyra gold ochre)
R: 235
G: 141
B: 9

Keyboard

Group 5:Piano is #9(derwent 19) with tone clusters in image displacement



piano is #9
R: 255
G: 0
B: 81

Group: 6Celeste is #10 (derwent jade gr) over silver #24



celeste is #10 (derwent jade gr) over silver #24
R: 49
G: 249
B: 177

Group 6: Kalimba thumb piano is oboe into knee +red from marimba(#11,12, 21) over metal piano



kalimba thumb piano (#11, 12, 21)
R: 156
G: 123
B: 0

Keyboard group 2

Group 2: (woodwinds)Pipe Organ: will be 4 strips with colors derived from Clarinet, Alto Clarinet, Bass Clarinet, Contra Bassoon



clarinet: R: 69 G: 153 B: 116
alto clarinet:R:129 G: 51 B: 67
bass clarinet: R: 149 G: 204 B: 229
contra-bassoon: R: 0 G: 0 B: 76

timbrePg21

Group 3:Tam tam on the rim add #4(lyra or-yel)+#5(lyra lt.or) over #29 (l.burnt carmine) over #28(primsa gold)



Tam tam on rim +#4,#5,#29 over #28 gold
R: 187
G: 107
B: 5

Group 3:Elephant bells

Group 3:Cowbells

Group 10:Sheep bells

Group 10:Thunder Sheet is #27 (lyra cold dk grey) over silver metal



Thumder Sheet is #27 (ly cold dk grey) over silver R: 21
G: 22
B: 76

Glass

Grp: 7 Cloud Chamber Bowl is darkest of glass+ #39(metalic blue), always hit with soft mallet, many pitches, but not in mathematical ration, many enharmonic pitches. So-it has a dissonance-therefore compl color #4+#5.



Cloud Chamber Bowl #39 + [#4&#5] under glass
R: 143
G: 129
B: 87

Grp: 7 Glass Harmonica is middle pitched between windchimes-higher than chamberbowl--is resonant and ringing: #4 [or-yel]+ #19[lyra magenta]



glass harmonical #4[lyra or-yel]+#19[lyra magenta] R: 213
G: 64
B: 104

timbrePg20

Ursonate — Kurt Schwitters' Ursonate (1990–1993)

800-square-foot hand-painted visualization; phonetic themes mapped through hand-built analysis. Full section indexes on jackox.net.

Page: https://www.jackox.net/pages/Ursonate/ur_MAINindex.html



First Movement — section thumbnail (55 sections; full set on site)



Second Movement (Adagio)



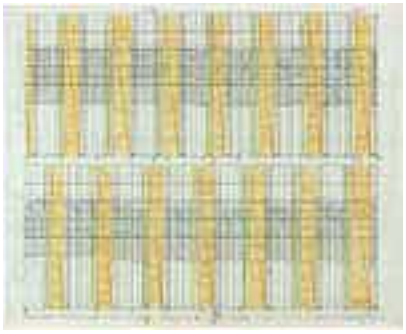
Third Movement (Scherzo and Trio)



Fourth Movement (presto)



Handmade scores of Schwitters' performance



Ox's scores for the visualization



Visual themes — metaphors for the phonetic themes



Vowel chart



First Movement installed, Contemporary Arts Center New Orleans, 2004



Fourth Movement installed, CAC New Orleans, 2004



Los Alamos Mesa Library Gallery, 2011



Los Alamos Mesa Library Gallery, 2011



WERGO CD of the recording

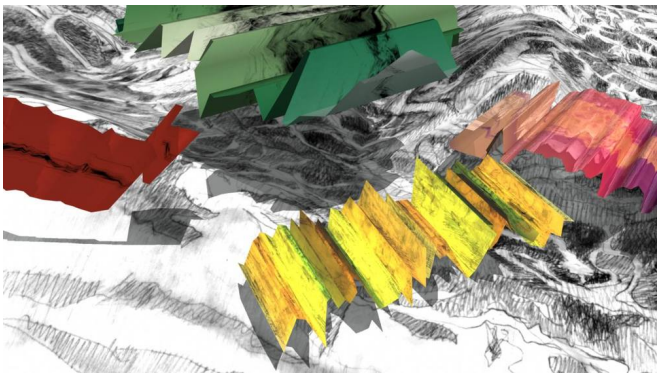


Ernst Schwitters' letter documenting the source recording

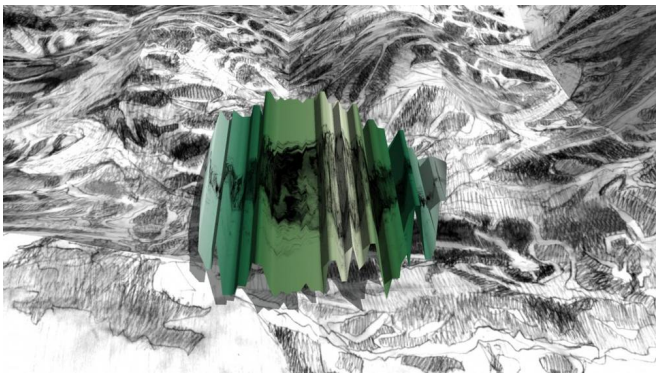
Gridjam (1999–2005, unproduced)

Fifteen-year project, never produced for lack of funding: networked performance of Alvin Curran's music visualized in real time in the Virtual Color Organ (with Dave Britton).

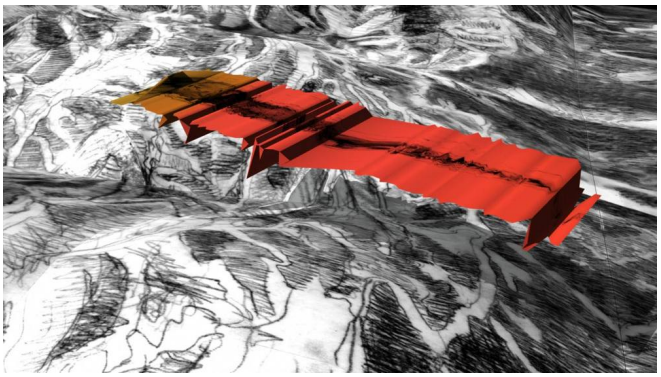
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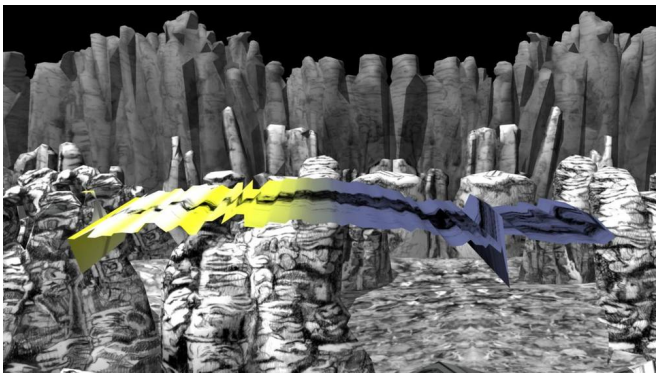
AurYelBuzzShoCaCine1



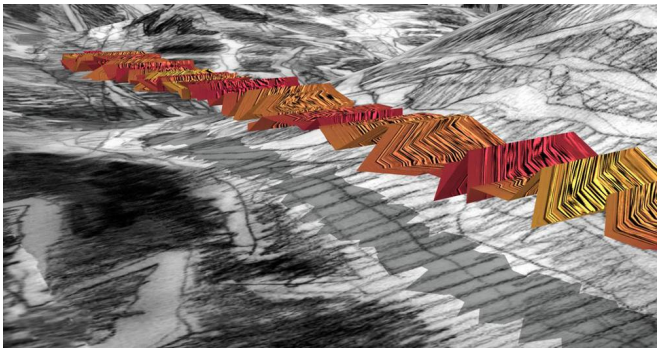
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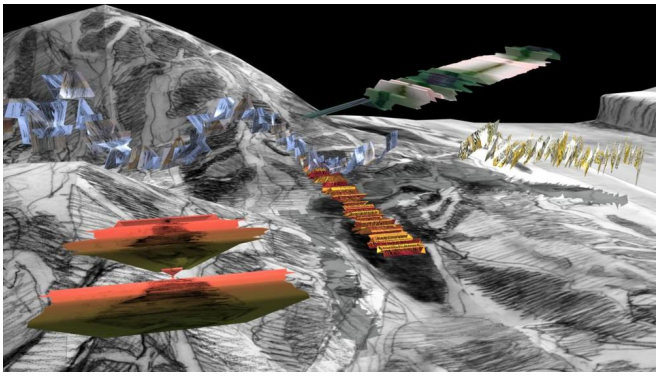
calasCine1



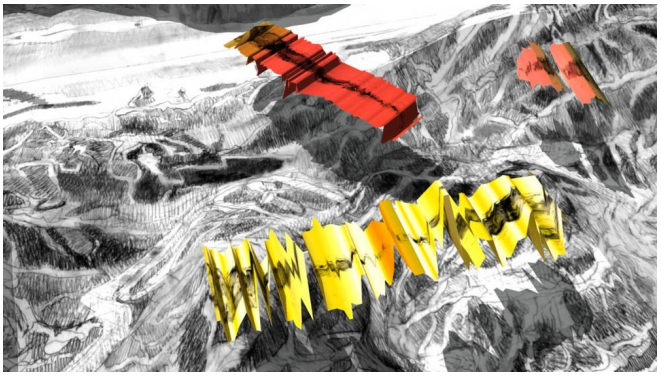
cjHYSTcine3



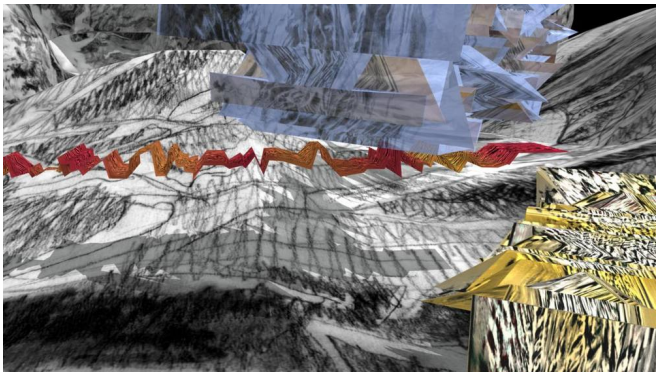
dedooFinCine2



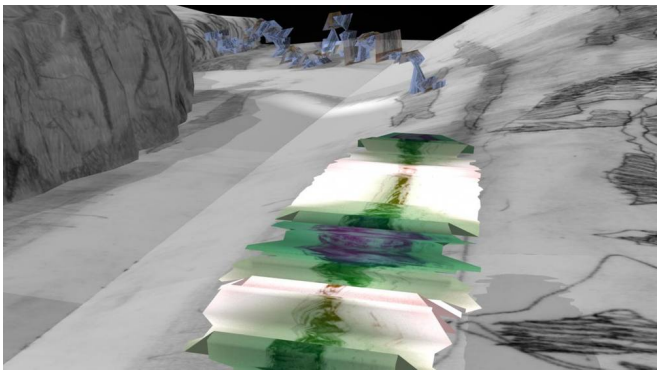
EleLioDedoCoinsHorCine



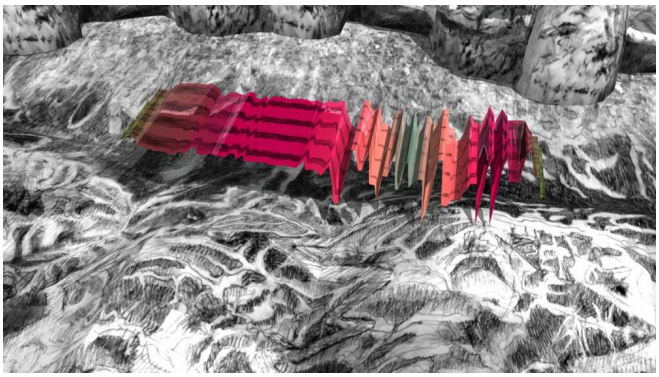
ES loCallasElcine1



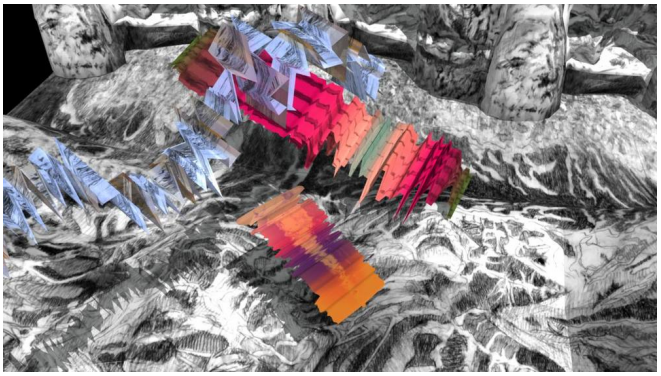
horaDedooCoiCine



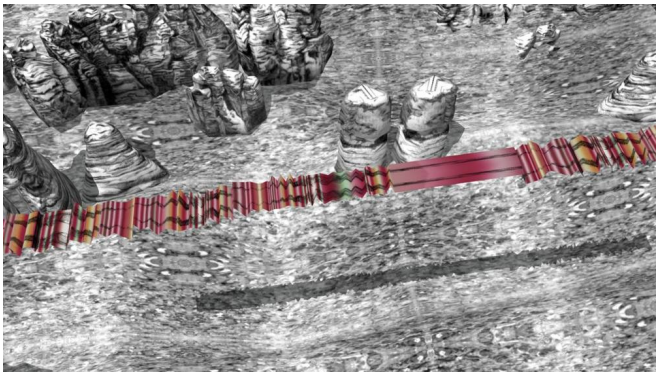
LionHoraCine2



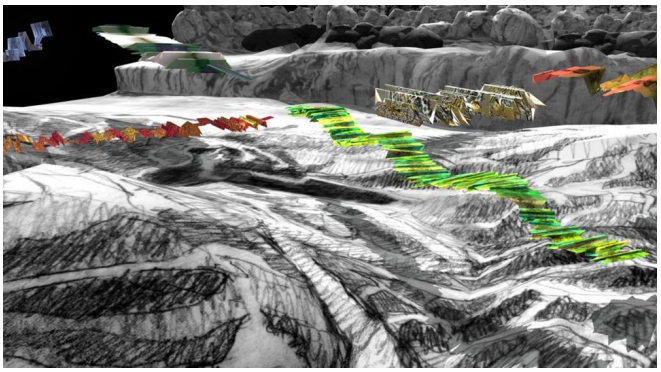
pattscreamCINE1



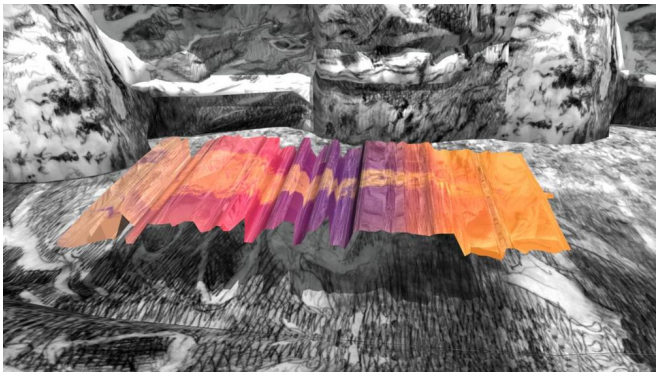
pattsHorShoCINE1



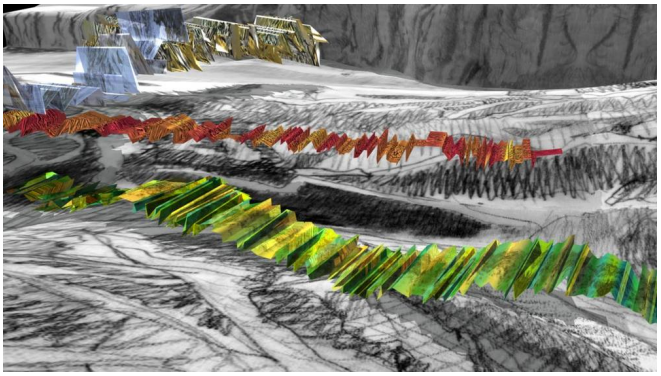
pianoTunCine4



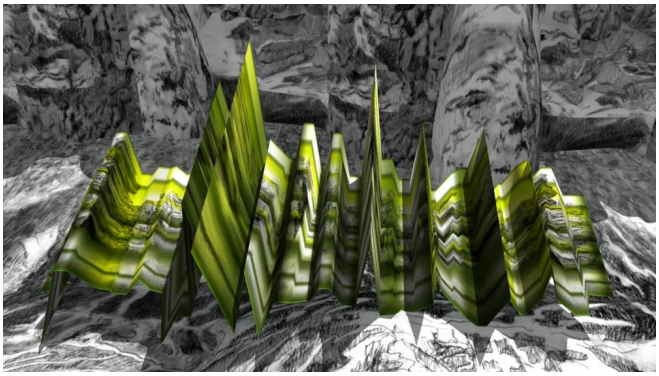
schtyxPLUSdeDoHorCine2



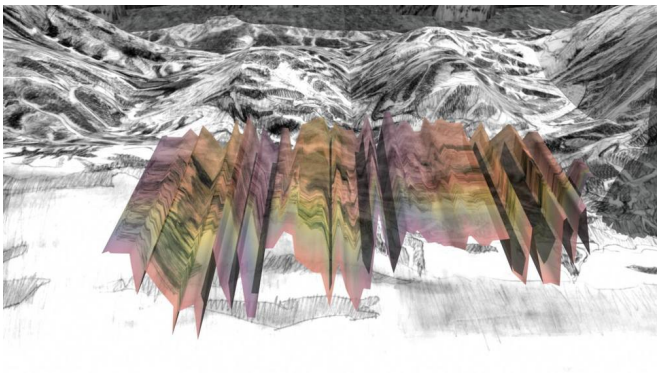
SHFRCine1



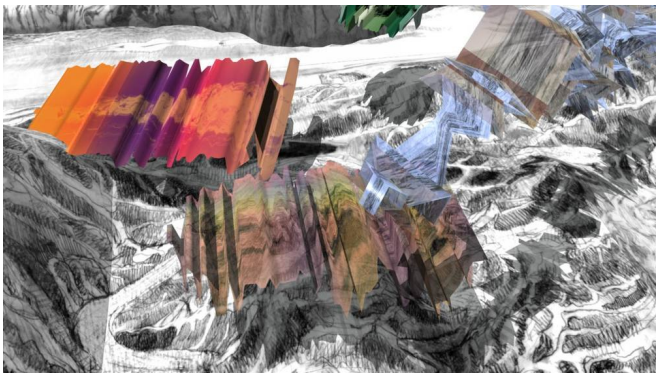
schtyxPLUSdeDoHorCine



teekettleCINE



YODLcine

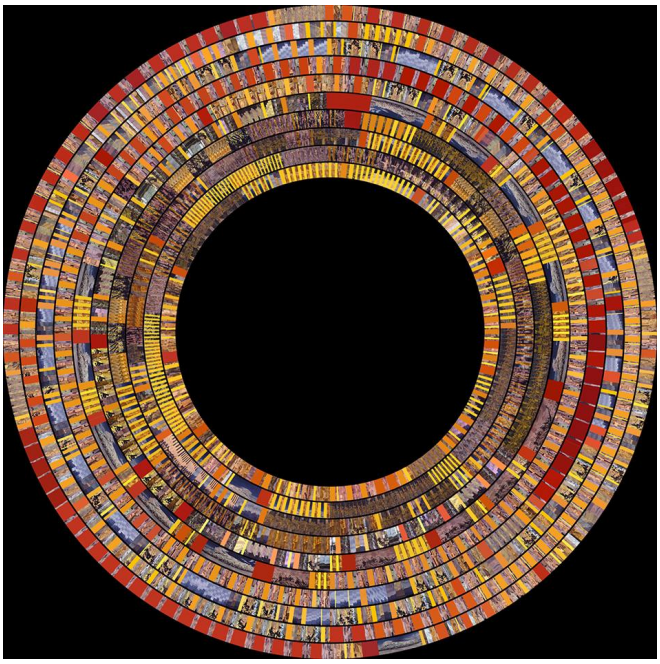


YODLhoraShocine

Ursonate domemaster (2015)

Circle image projecting the entire 800-sq-ft Ursonate, by Charles Veasey, for a Fourth Movement performance at the IAIA Digital Dome, Santa Fe. © Ox and Veasey 2015.

Page: https://intermediaprojects.org/pages/IntermediaProjectsPresentsUr.html

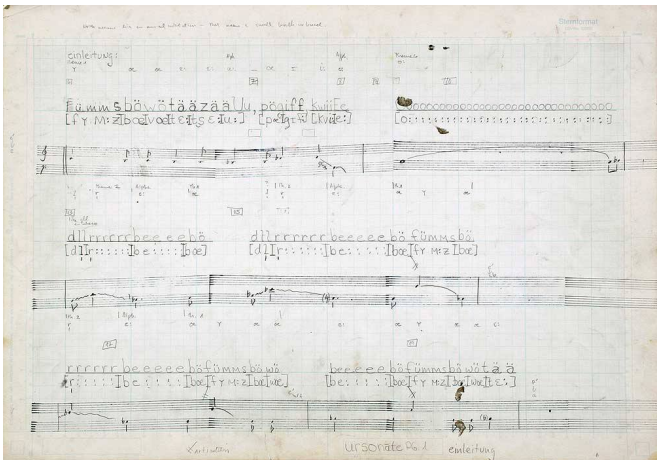


UrCircle950

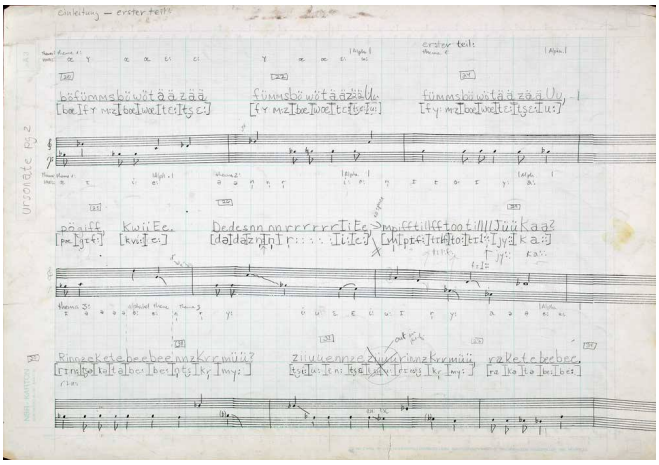
Ursonate — Handmade scores (42)

The hand-made original scores documenting Schwitters' own Ur-performance: Kai Schoenburg transcribed each pitch and note value by ear; phonetic analysis by Jack Ox with Angela Fuster-Duran (Phonetic Institute, University of Cologne); Ox hand-stamped the staves on graph paper.

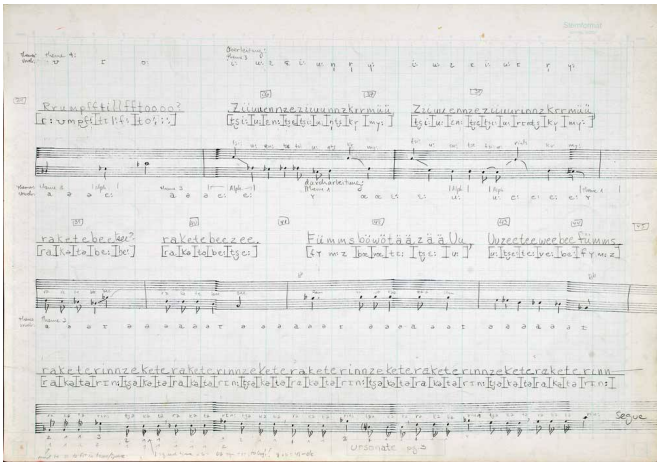
Page: https://www.jackox.net/pages/Ursonate/handscore_Indx.html



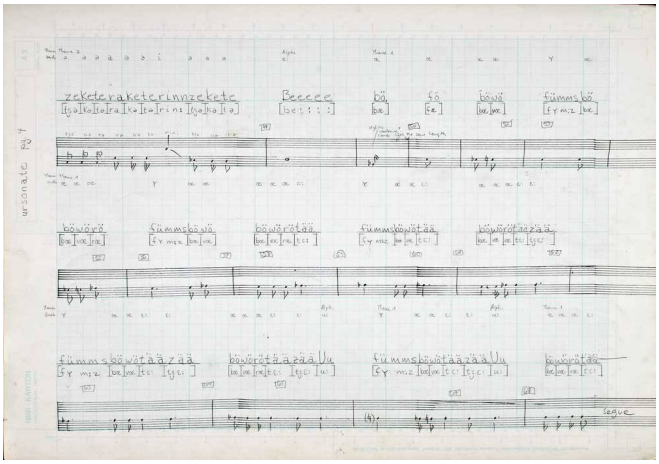
Handmade score 1



Handmade score 2



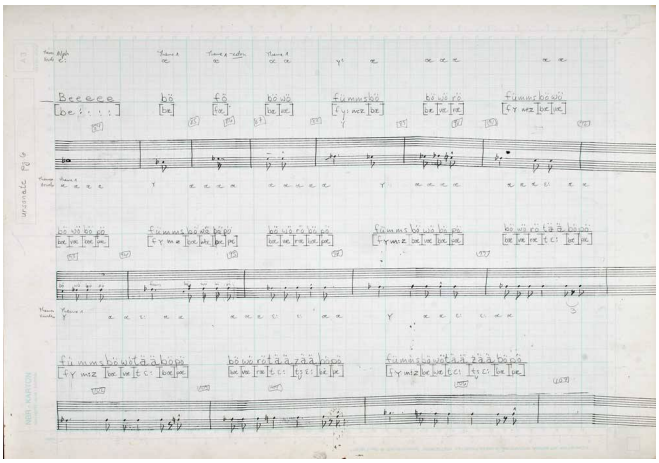
Handmade score 3



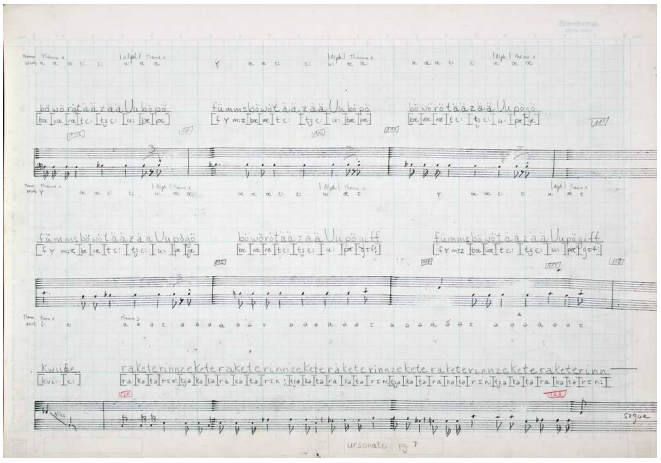
Handmade score 4



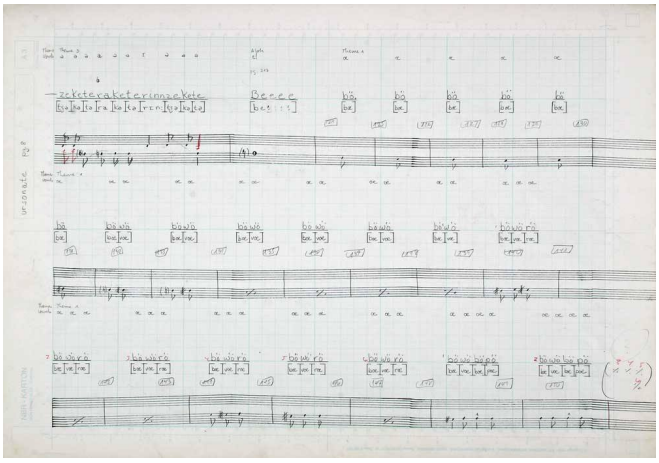
Handmade score 5



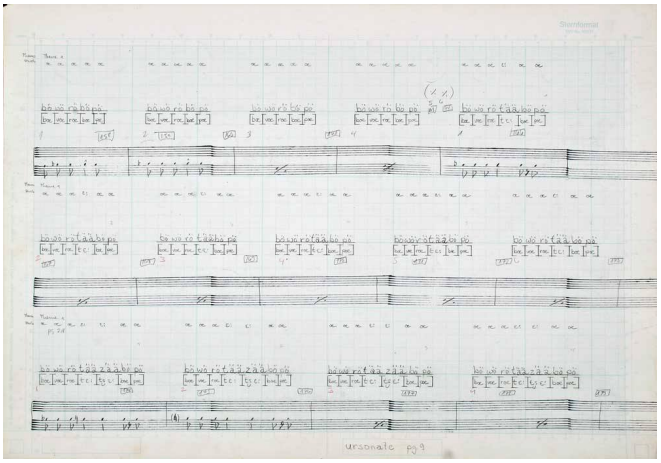
Handmade score 6



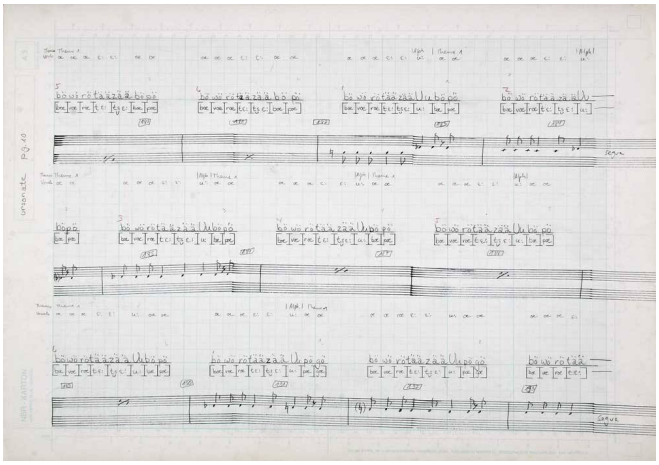
Handmade score 7



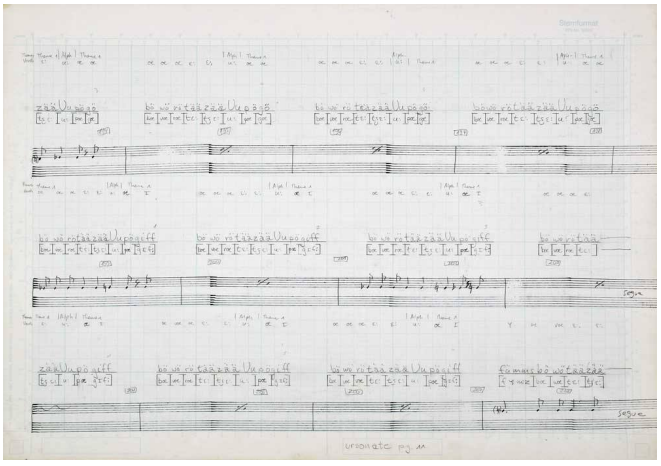
Handmade score 8



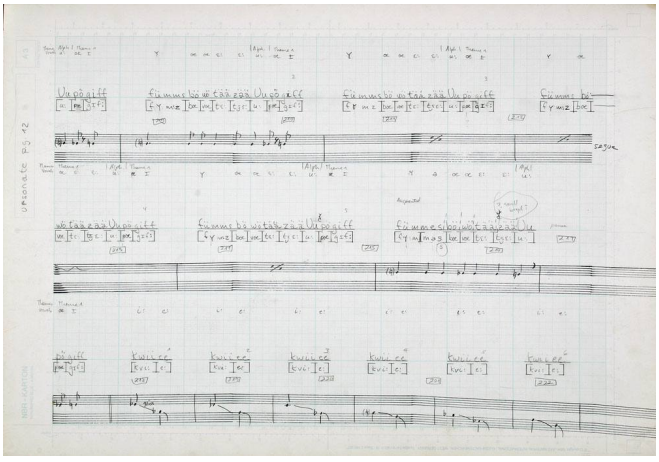
Handmade score 9



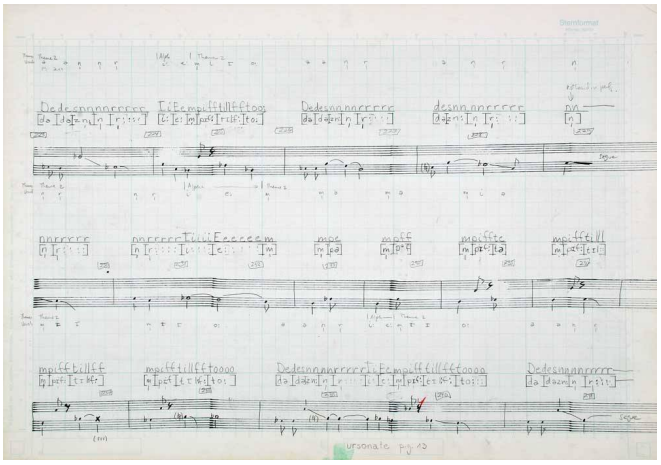
Handmade score 10



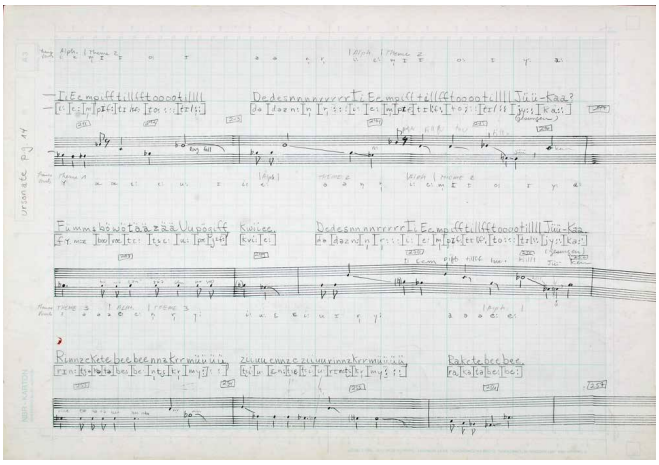
Handmade score 11



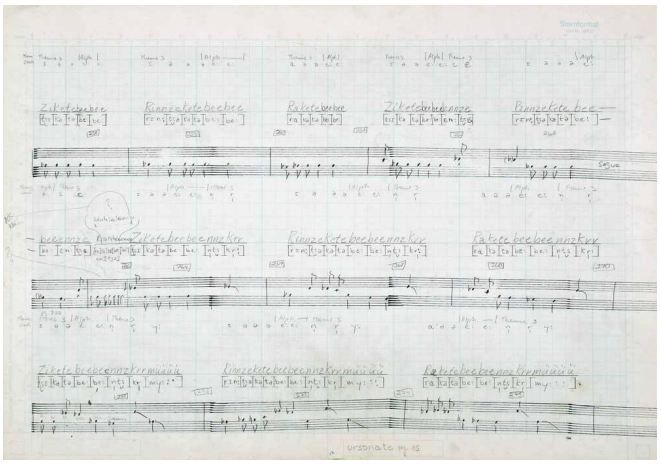
Handmade score 12



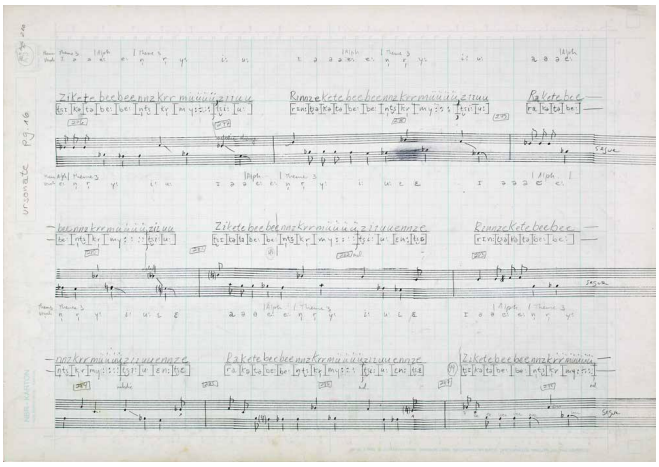
Handmade score 13



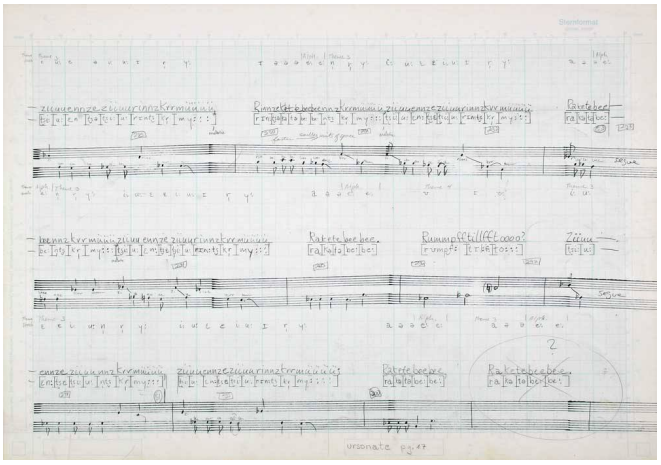
Handmade score 14



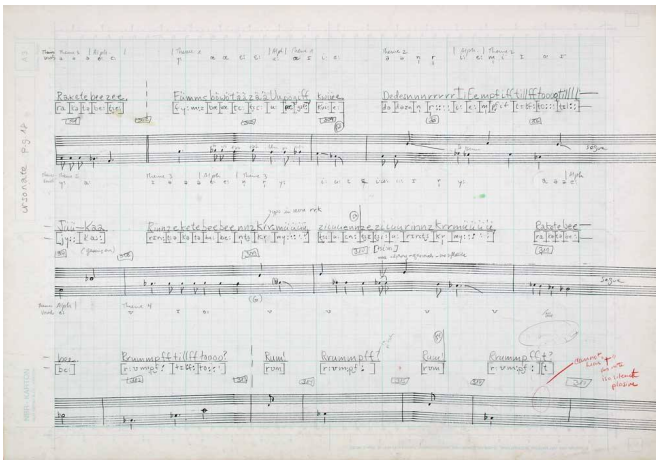
Handmade score 15



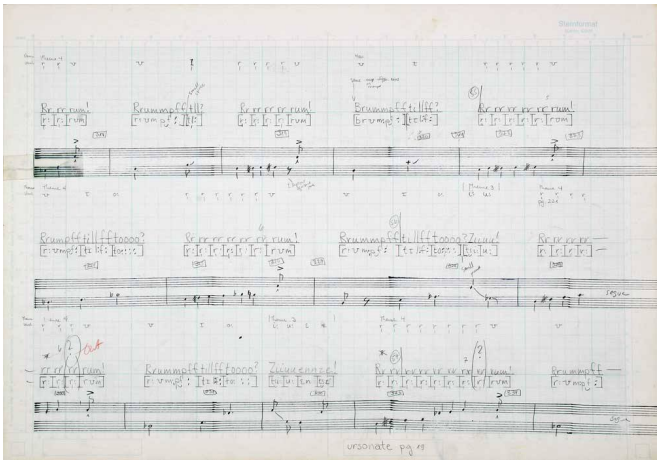
Handmade score 16



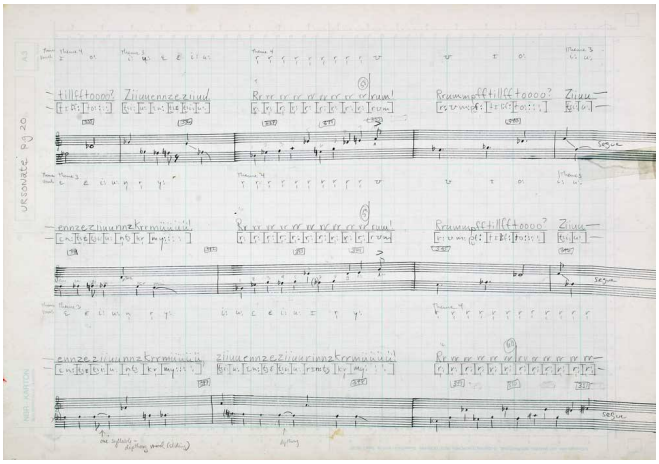
Handmade score 17



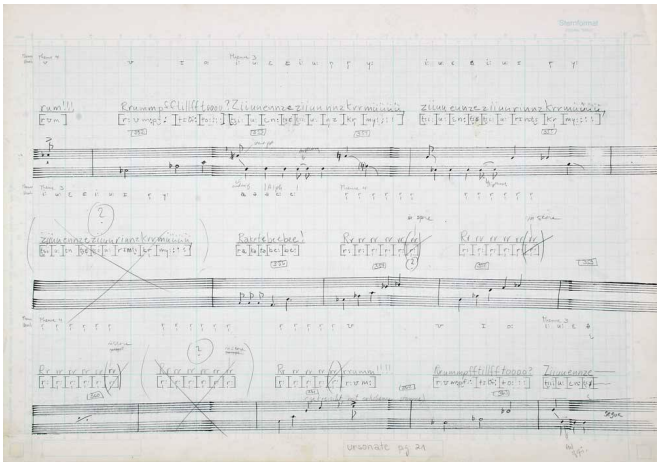
Handmade score 18



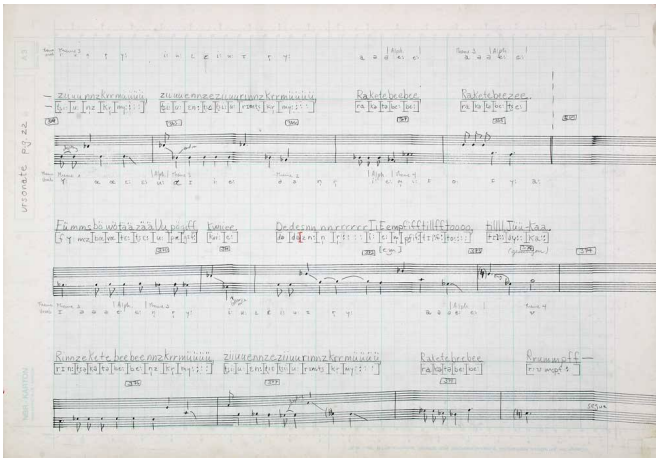
Handmade score 19



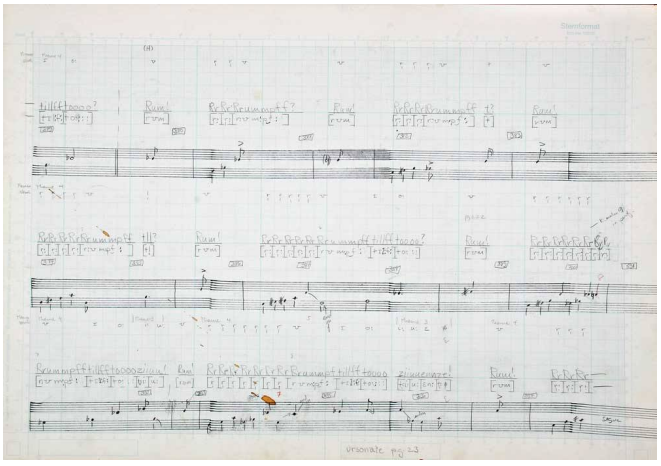
Handmade score 20



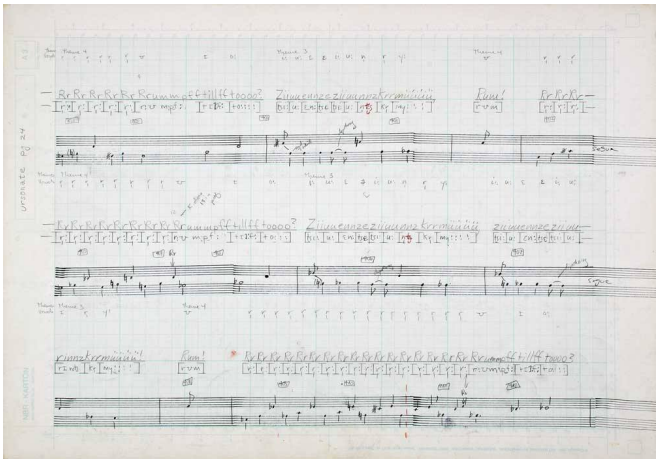
Handmade score 21



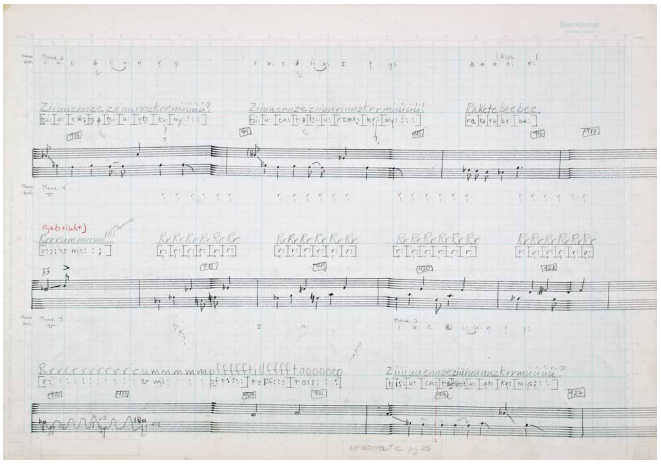
Handmade score 22



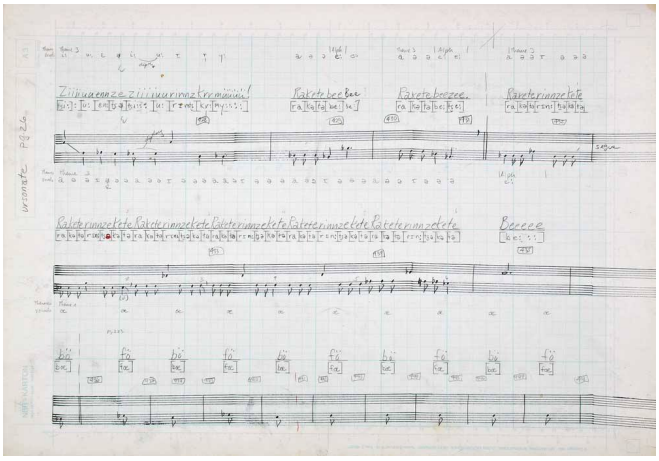
Handmade score 23



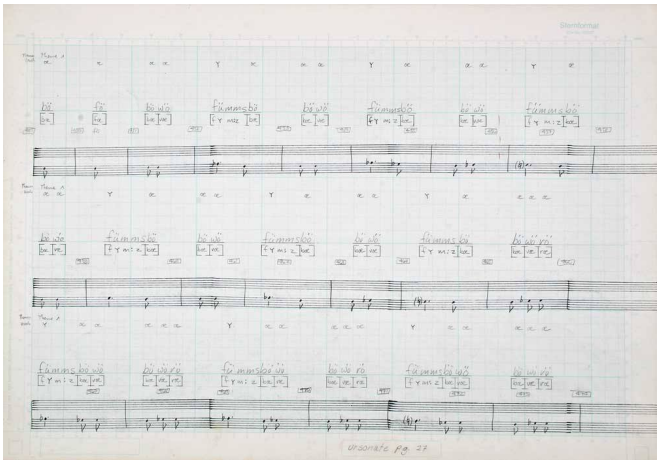
Handmade score 24



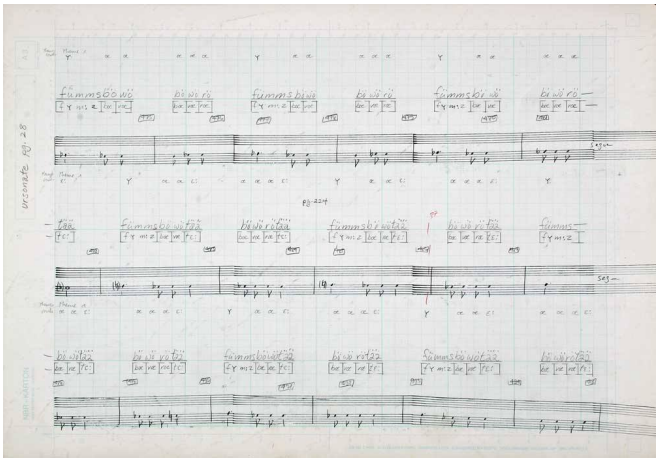
Handmade score 25



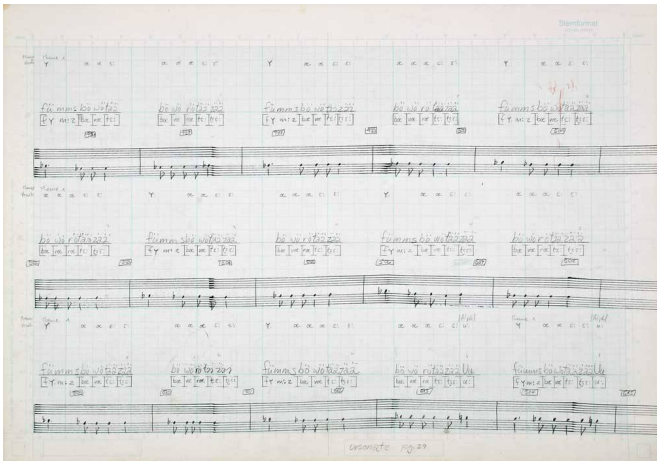
Handmade score 26



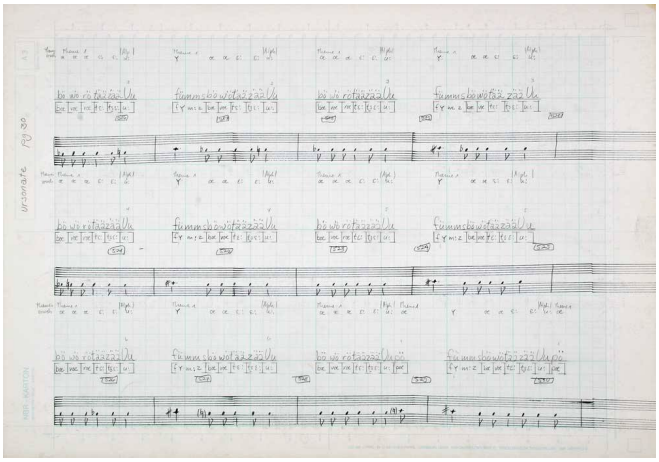
Handmade score 27



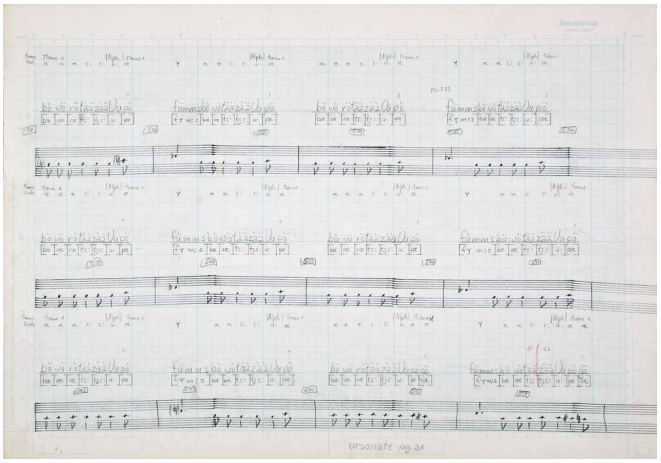
Handmade score 28



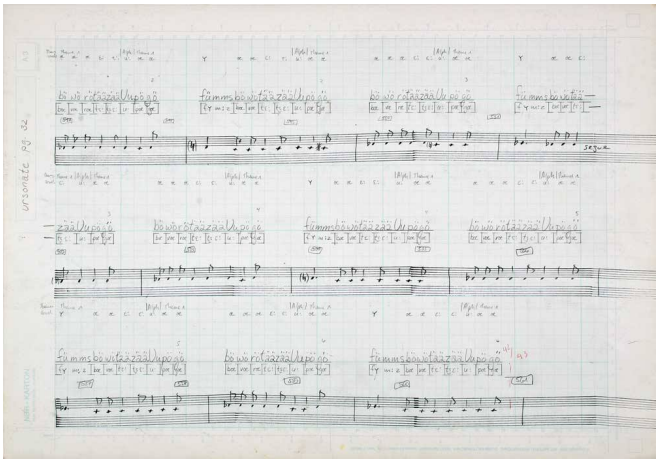
Handmade score 29



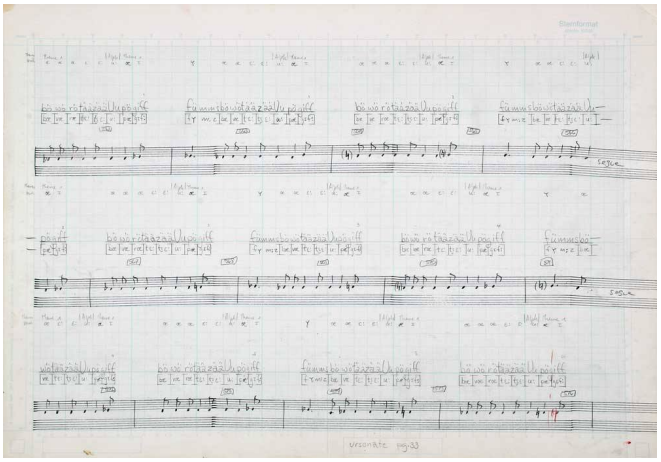
Handmade score 30



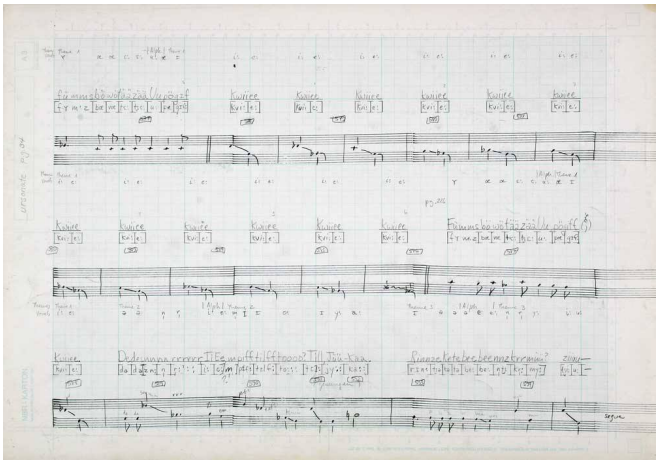
Handmade score 31



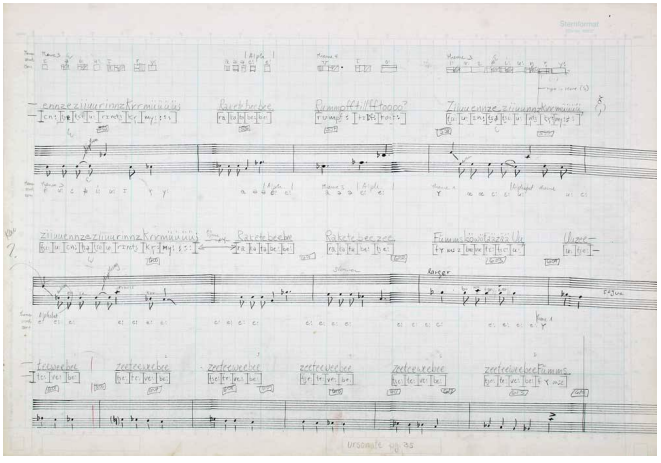
Handmade score 32



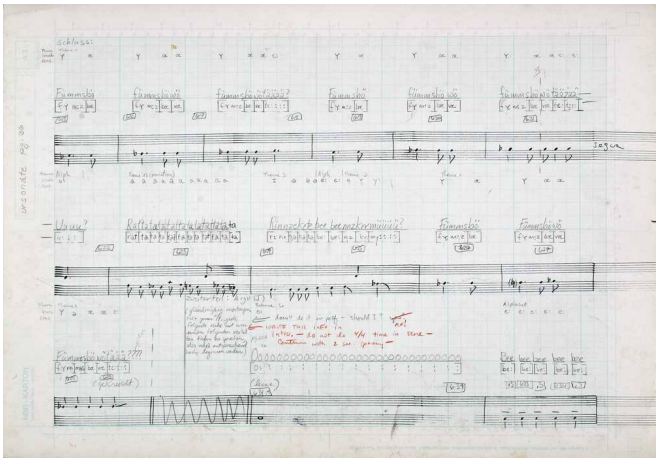
Handmade score 33



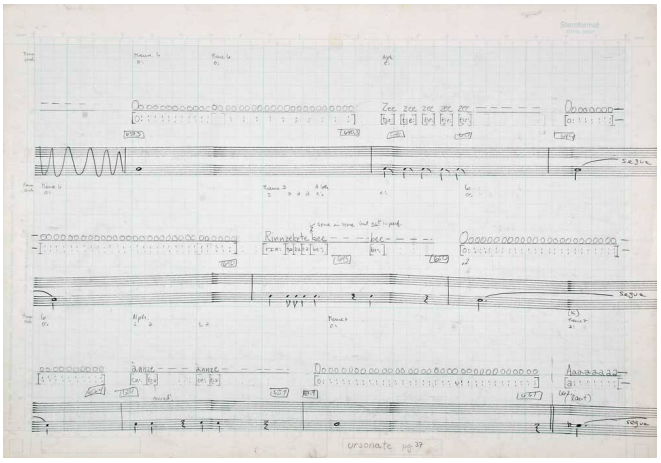
Handmade score 34



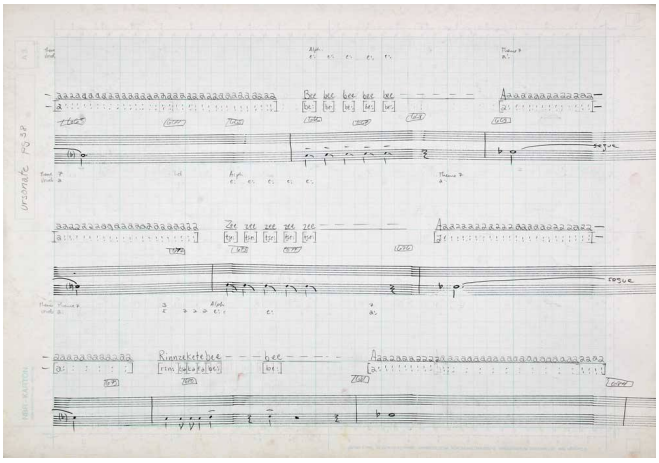
Handmade score 35



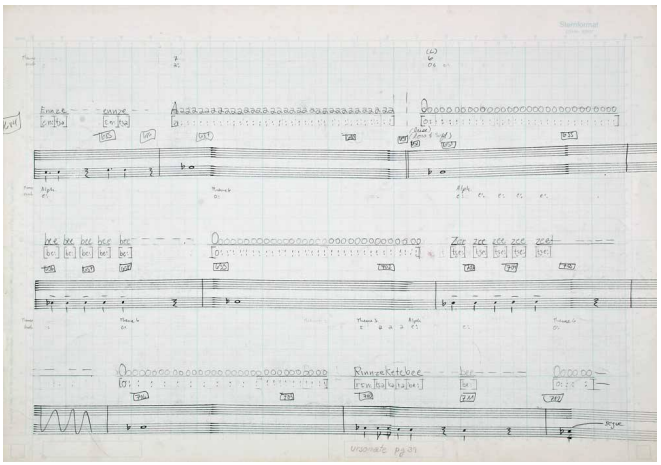
Handmade score 36



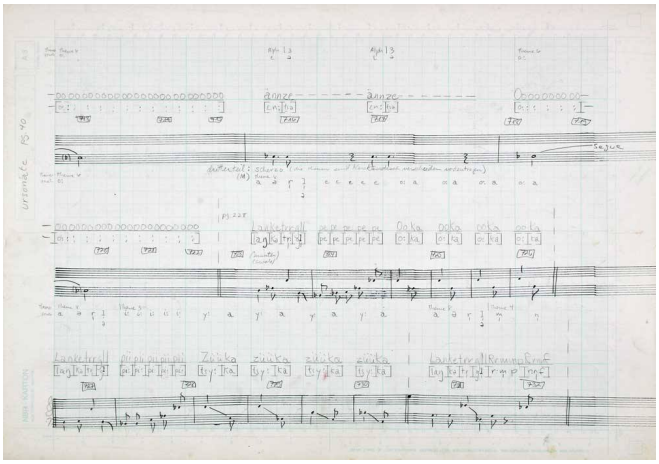
Handmade score 37



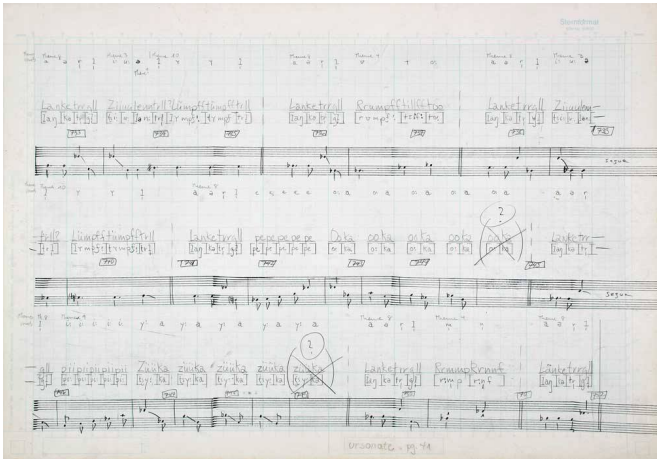
Handmade score 38



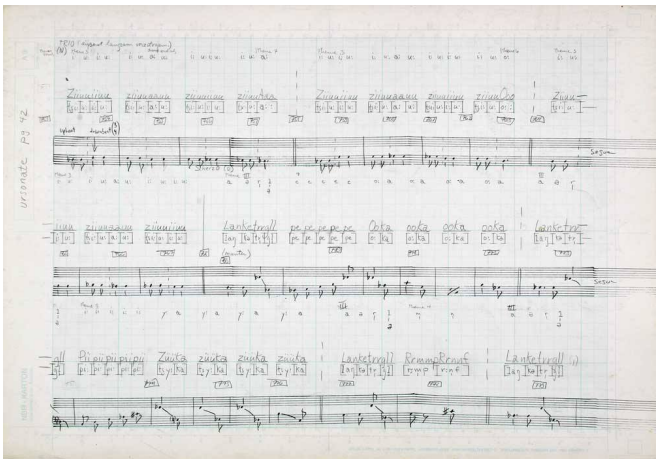
Handmade score 39



Handmade score 40



Handmade score 41

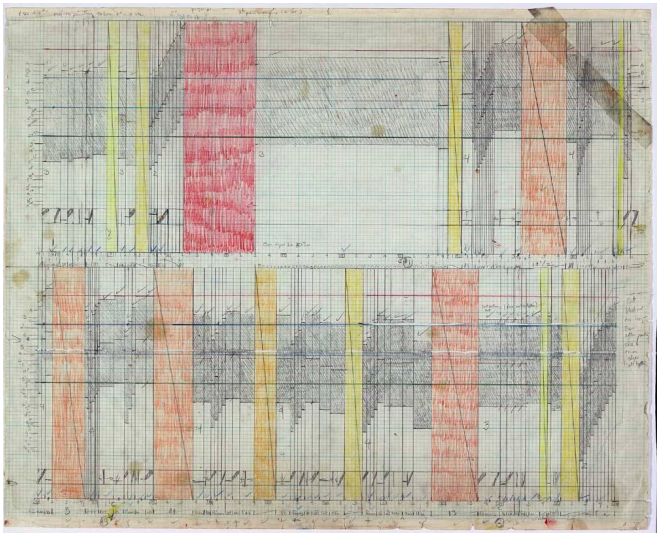


Handmade score 42

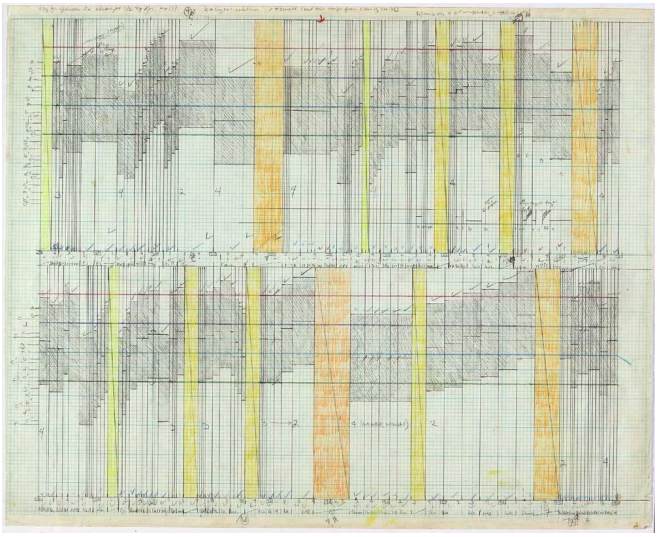
Ursonate — Ox's visualization scores (60)

Ox's hand-drawn scores from which the ~800 sq. ft. painting was made; originals at Muzeum Sztuki, Lodz. Colored strips mark silences in the WERGO recording.

Page: https://www.jackox.net/pages/Ursonate/UrIndex.html



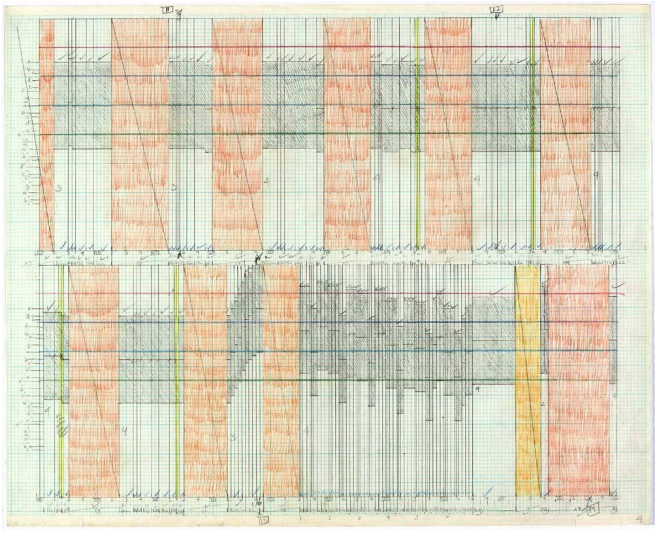
Ox's score 1



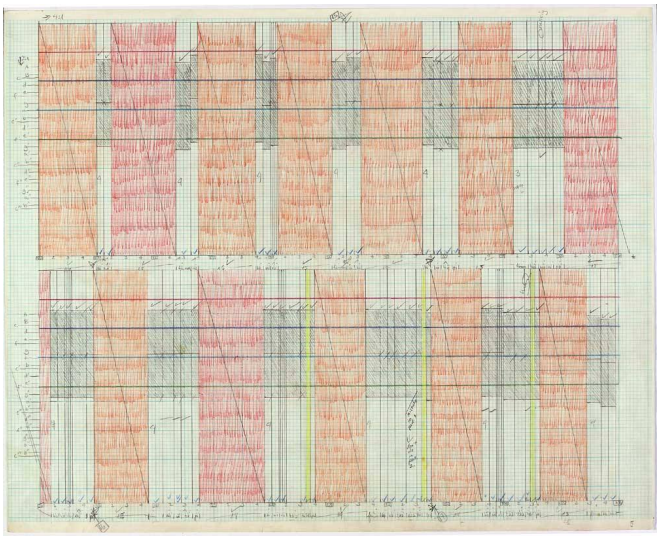
Ox's score 2



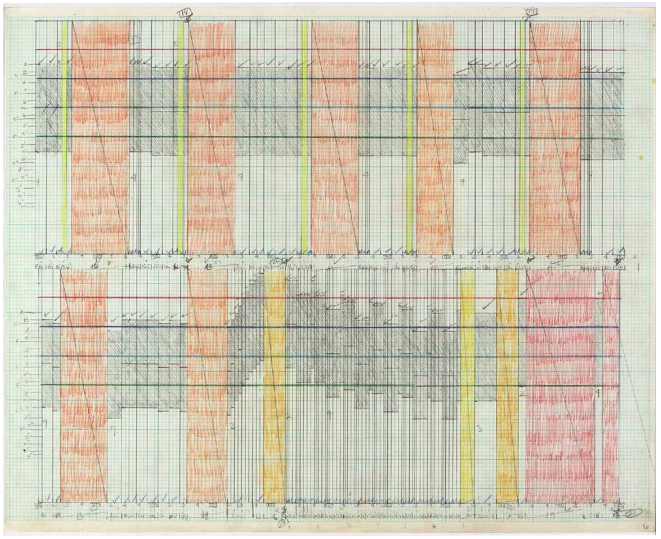
Ox's score 3



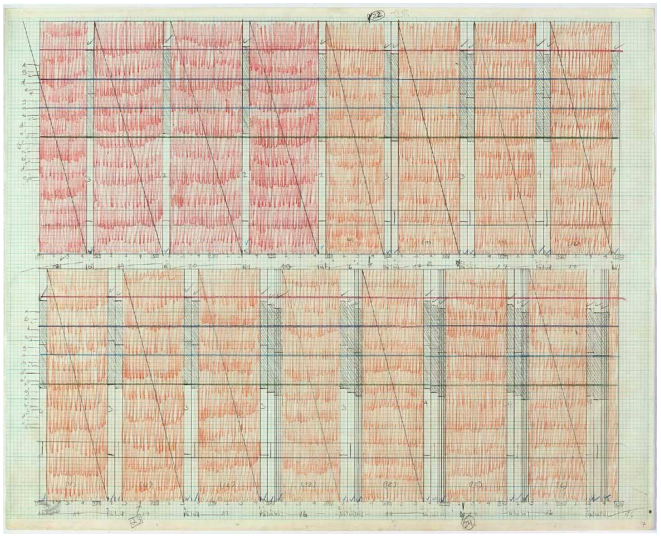
Ox's score 4



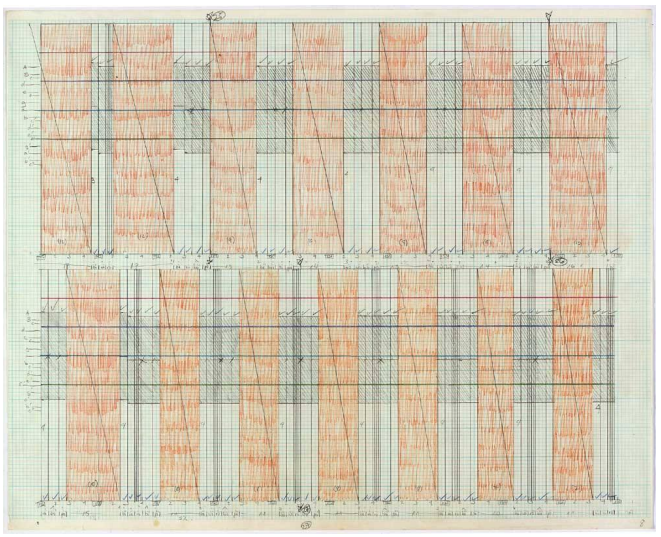
Ox's score 5



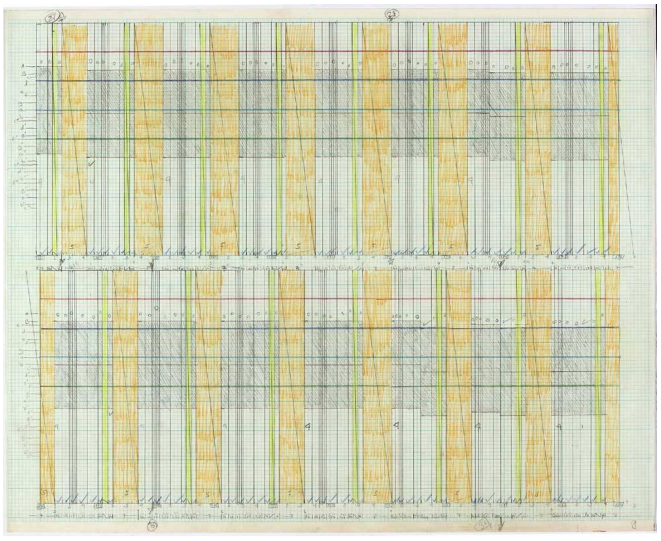
Ox's score 6



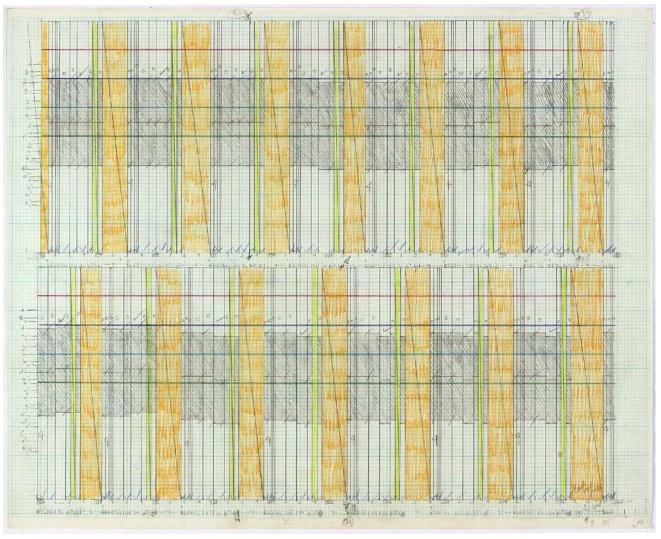
Ox's score 7



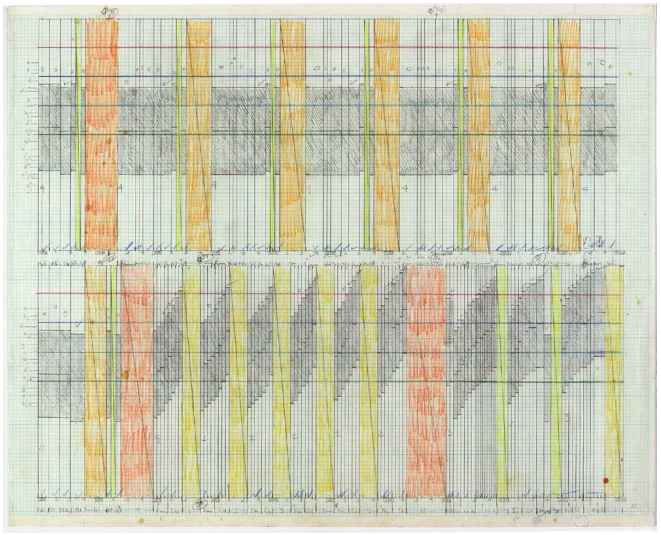
Ox's score 8



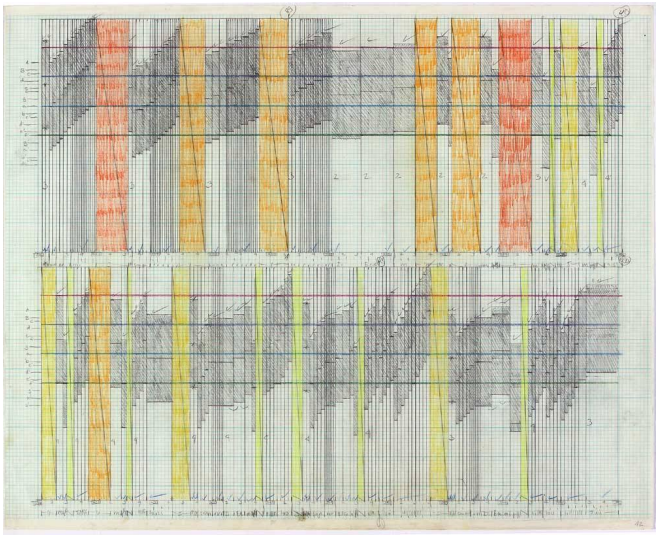
Ox's score 9



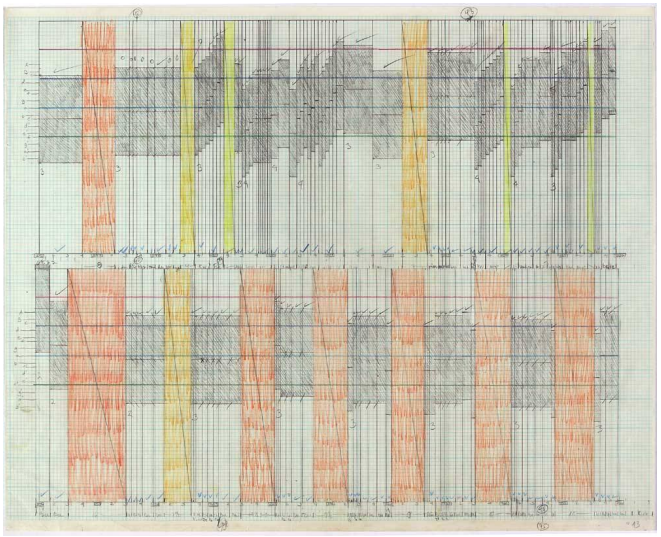
Ox's score 10



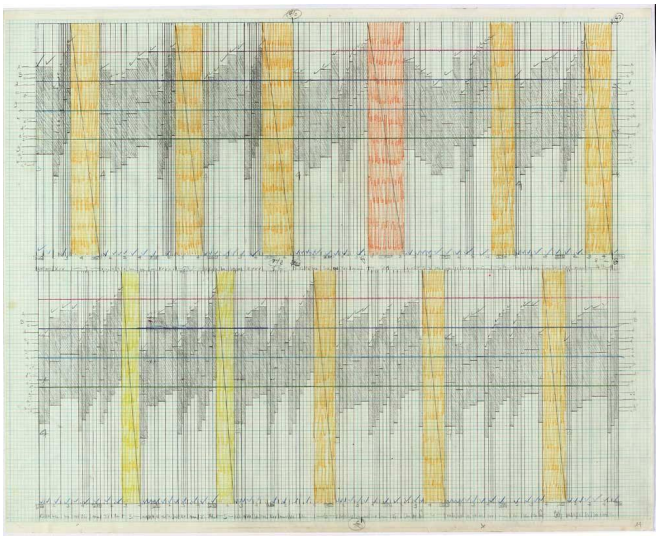
Ox's score 11



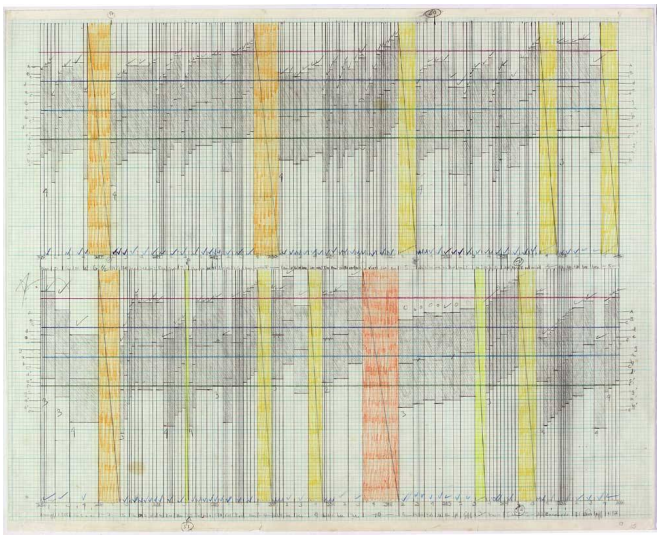
Ox's score 12



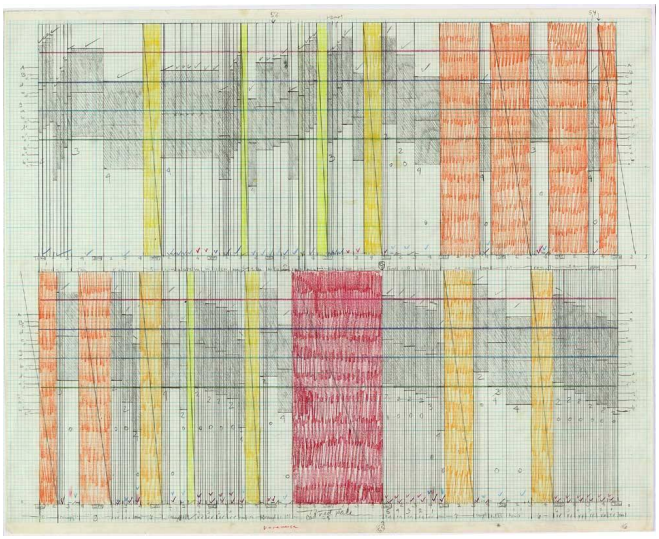
Ox's score 13



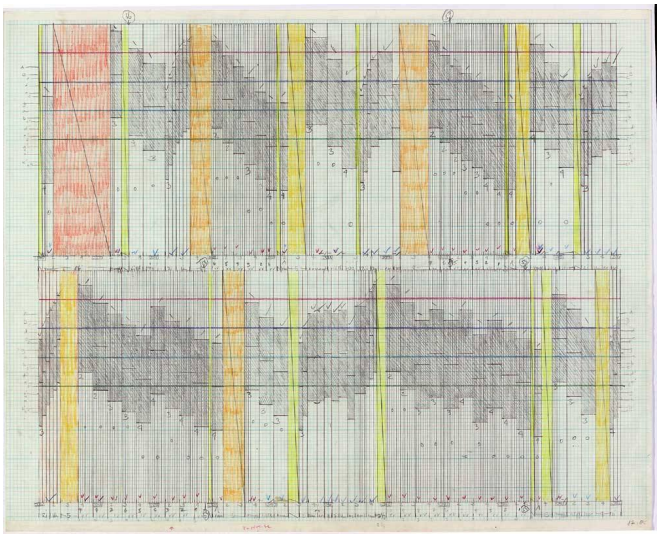
Ox's score 14



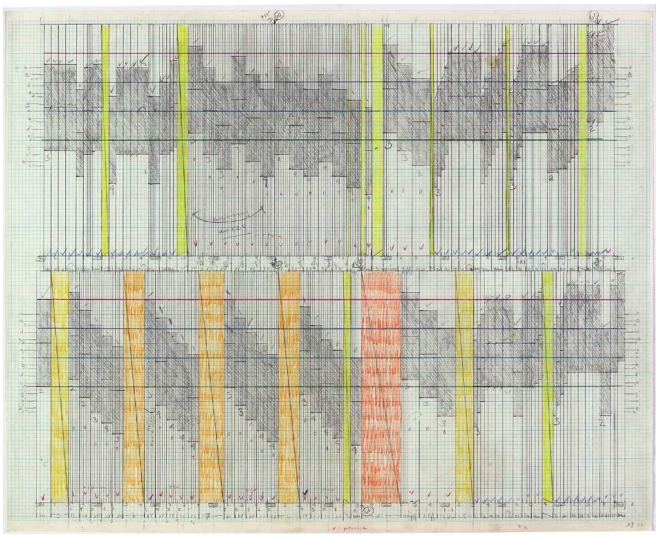
Ox's score 15



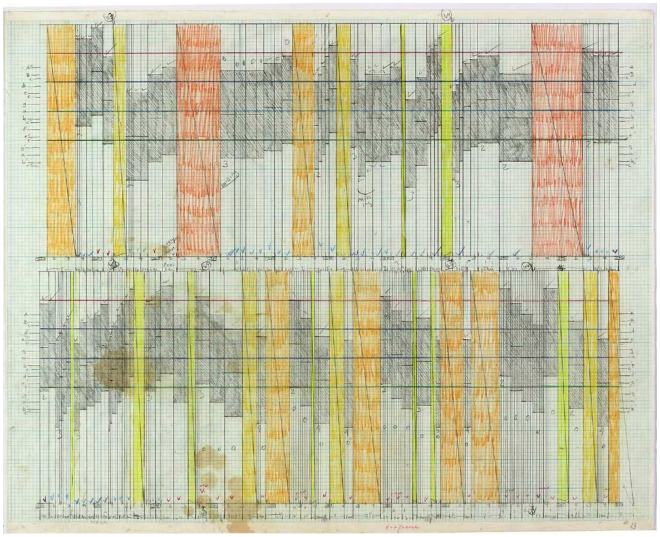
Ox's score 16



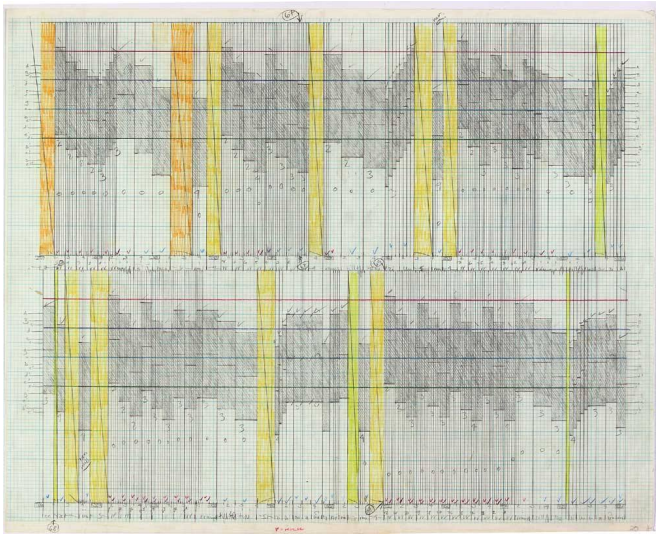
Ox's score 17



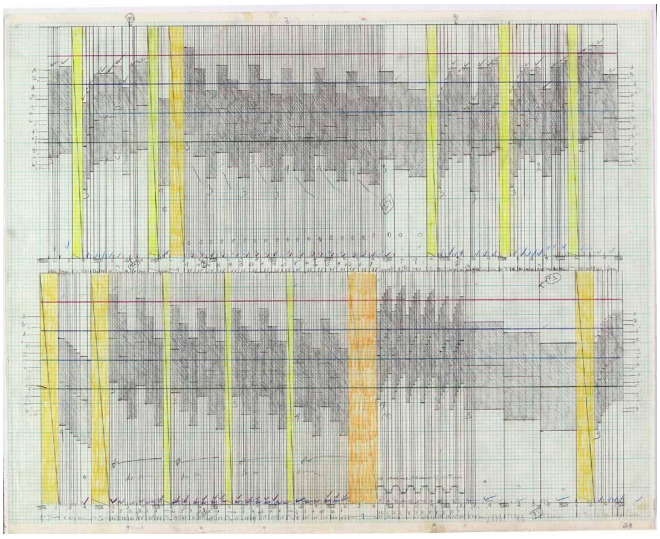
Ox's score 18



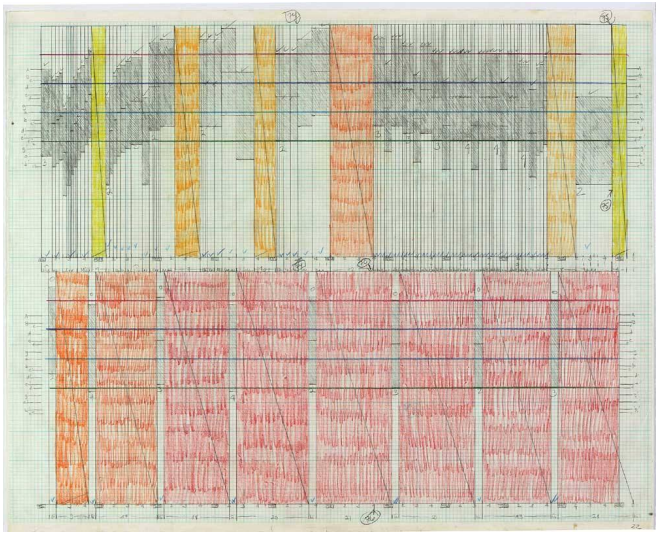
Ox's score 19



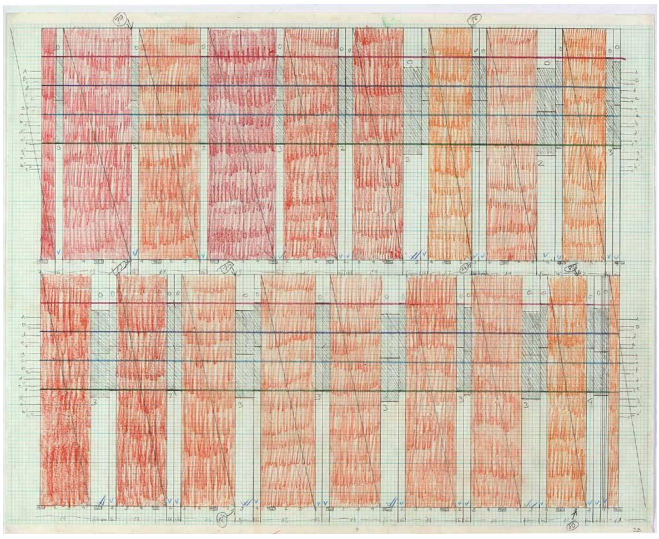
Ox's score 20



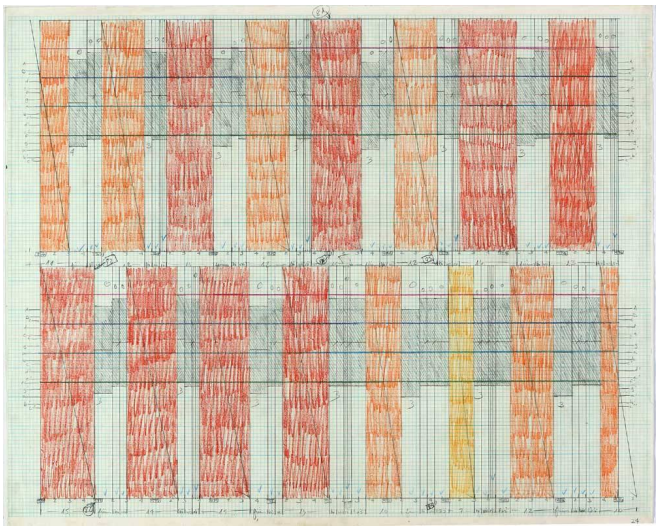
Ox's score 21



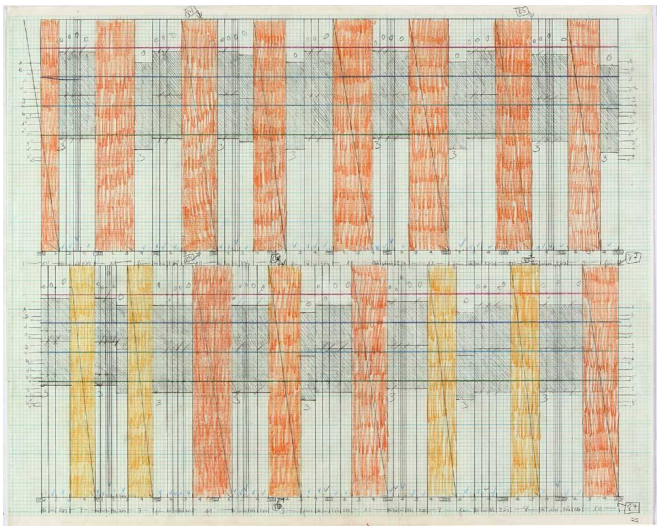
Ox's score 22



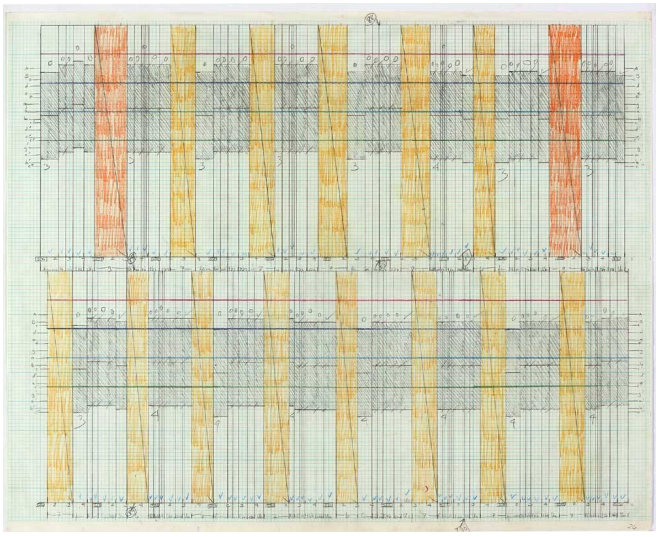
Ox's score 23



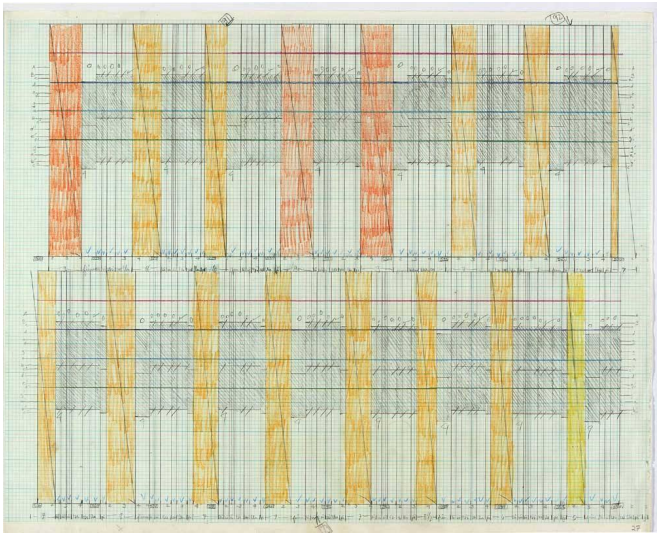
Ox's score 24



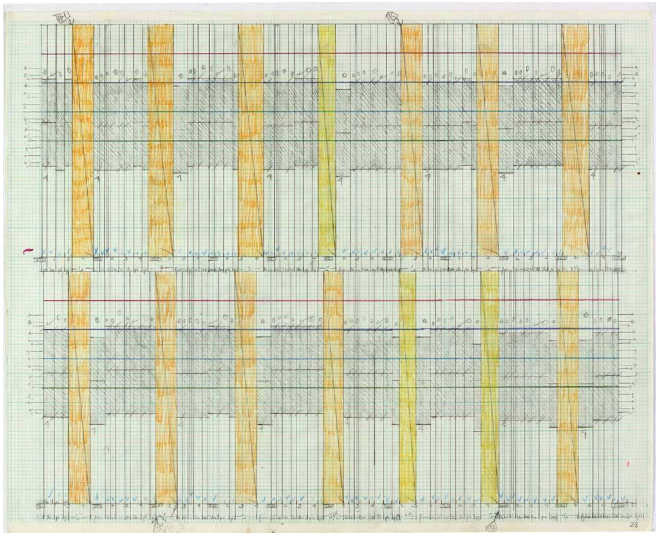
Ox's score 25



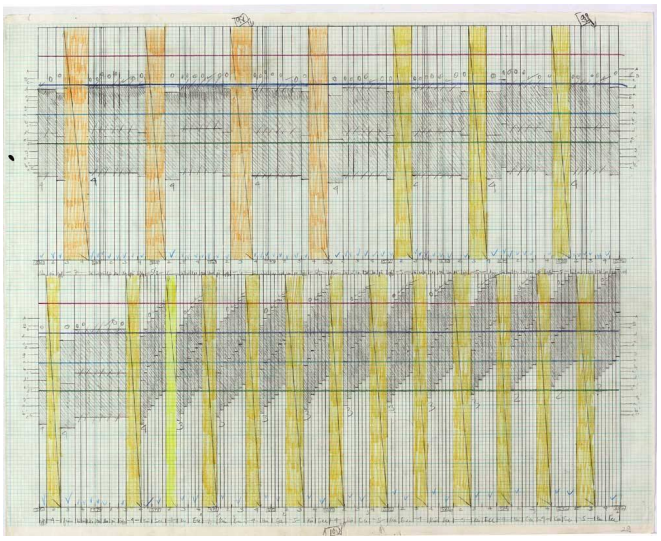
Ox's score 26



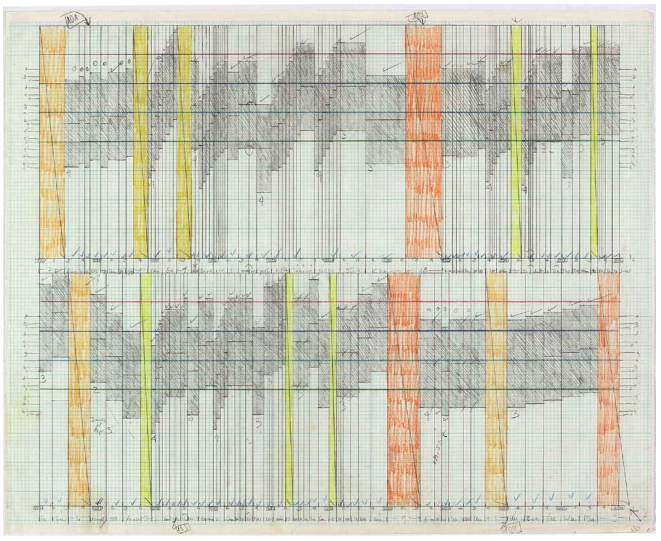
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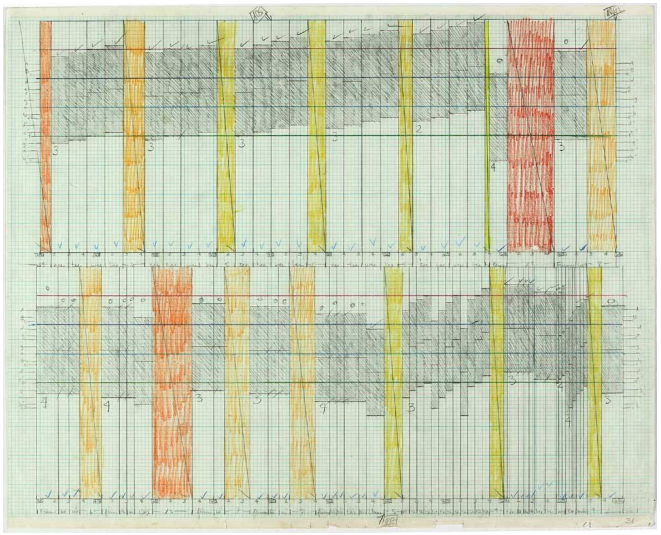
Ox's score 28



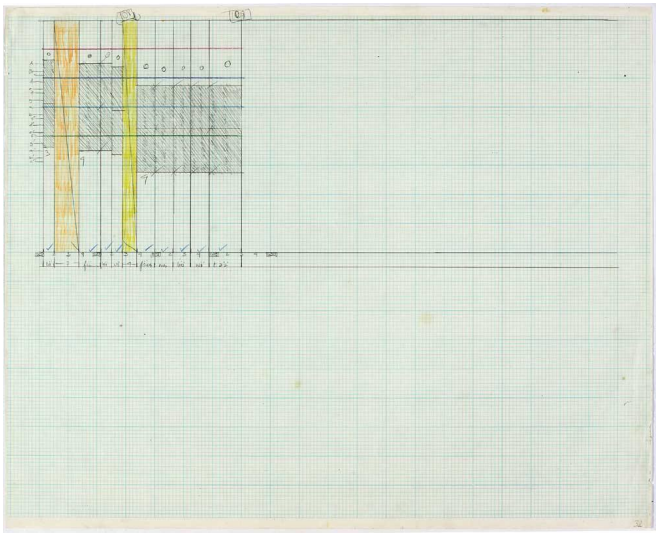
Ox's score 29



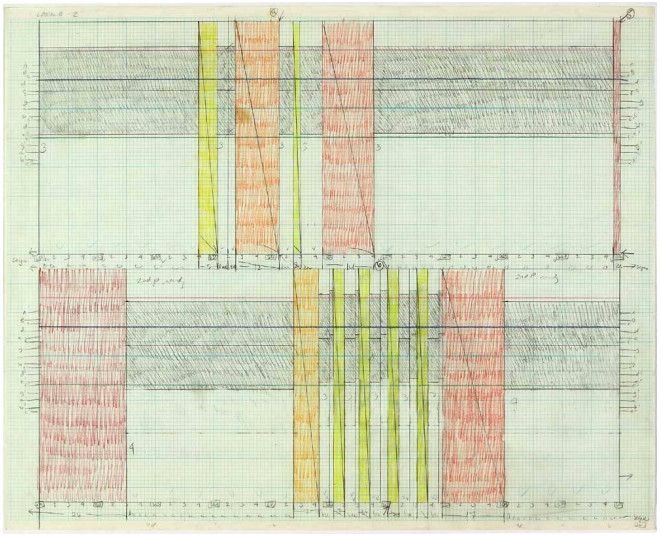
Ox's score 30



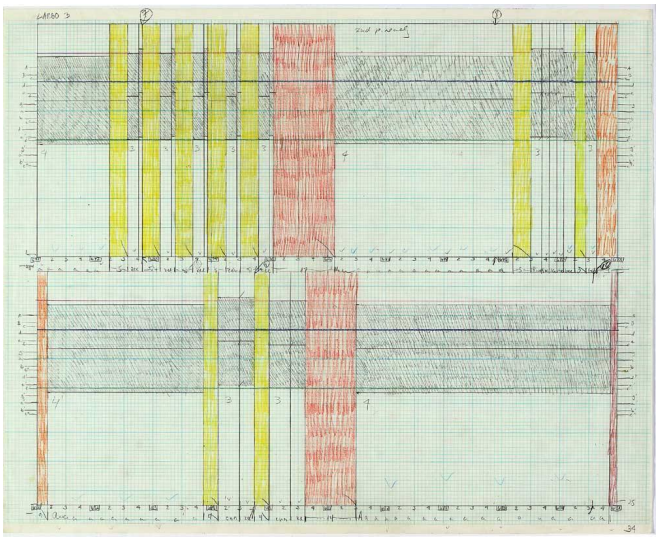
Ox's score 31



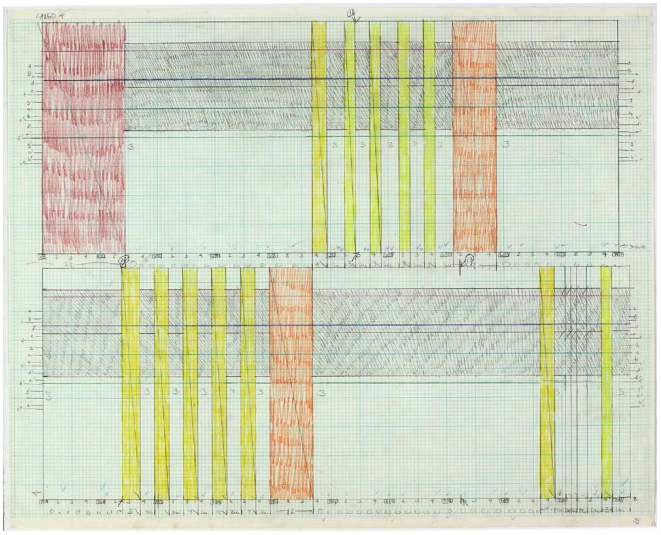
Ox's score 32



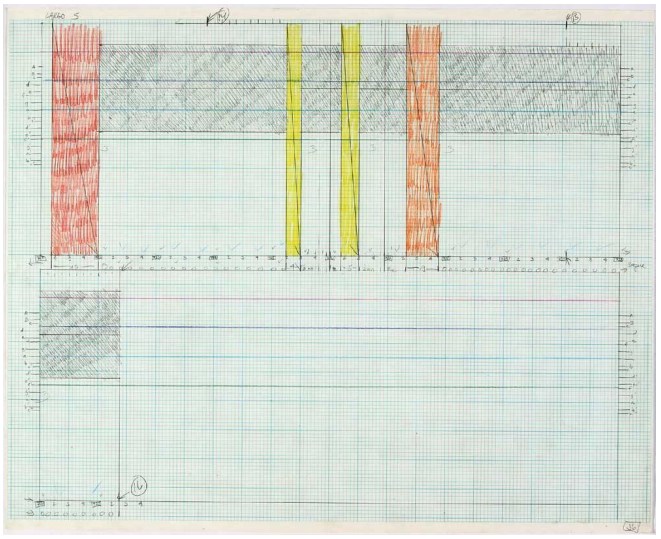
Ox's score 33



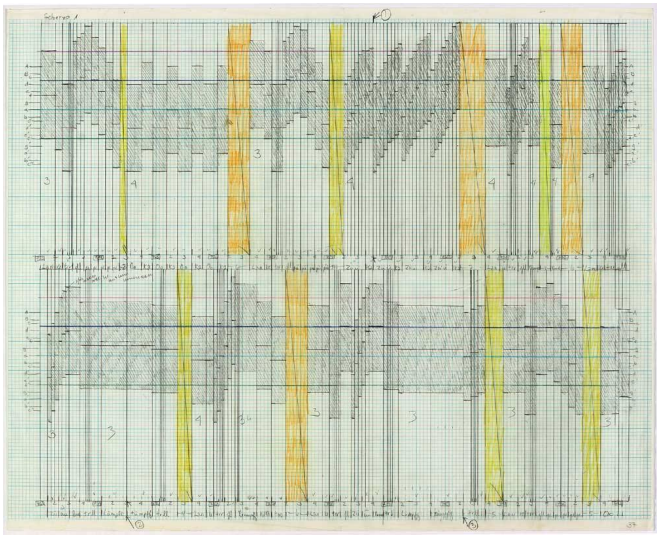
Ox's score 34



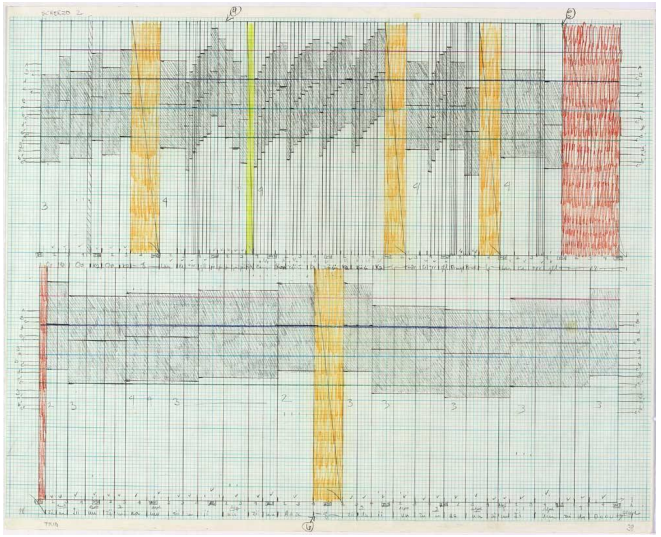
Ox's score 35



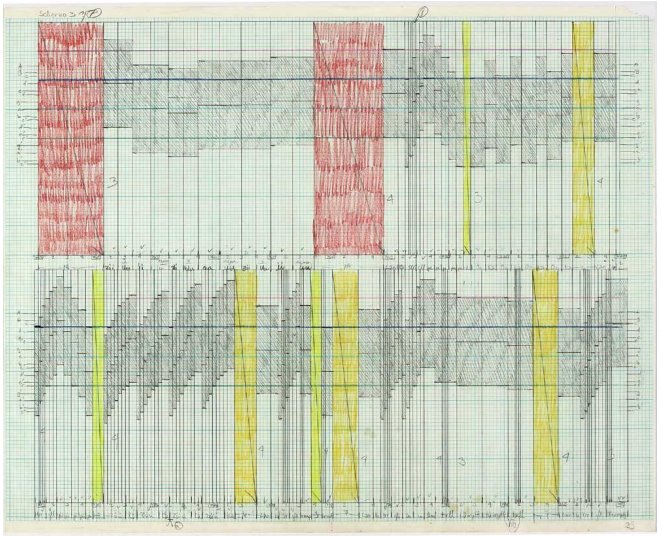
Ox's score 36



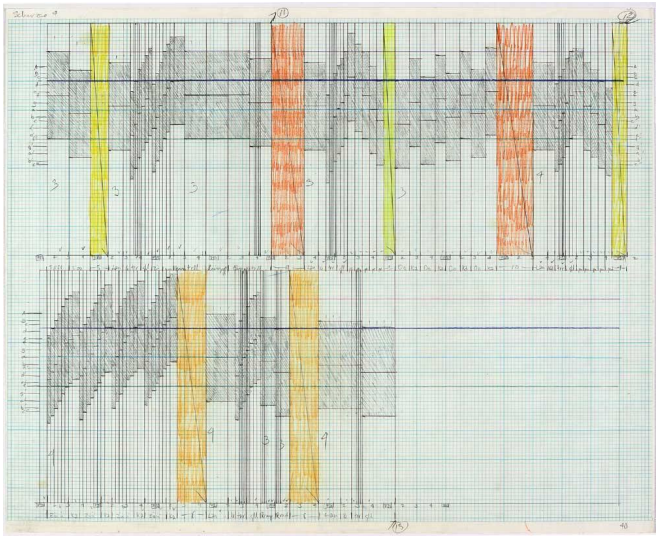
Ox's score 37



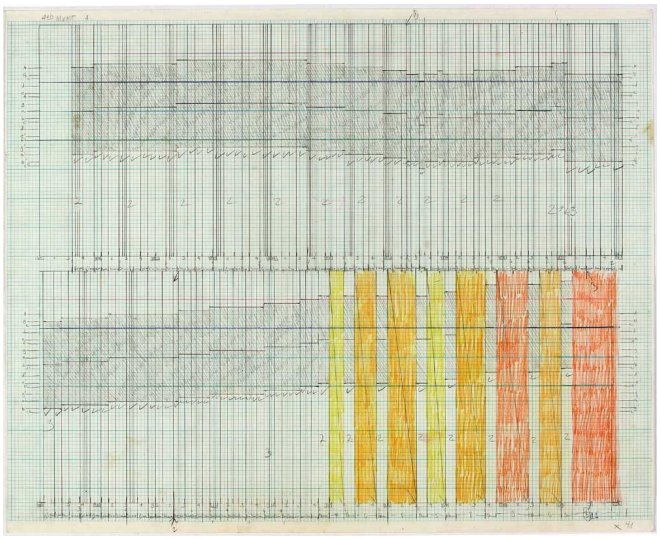
Ox's score 38



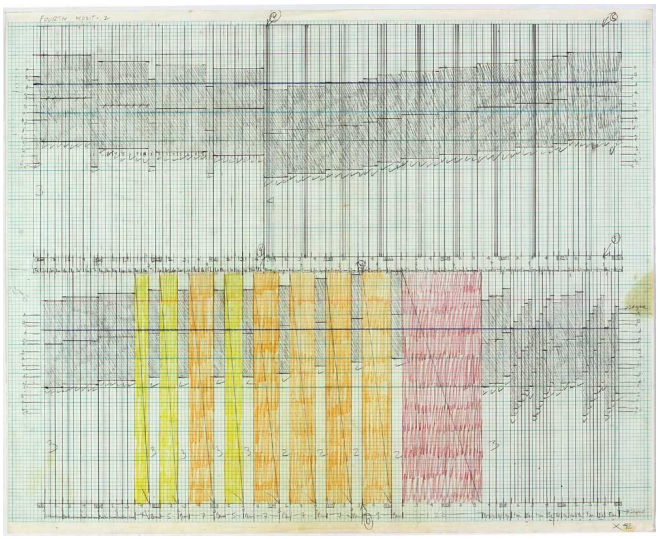
Ox's score 39



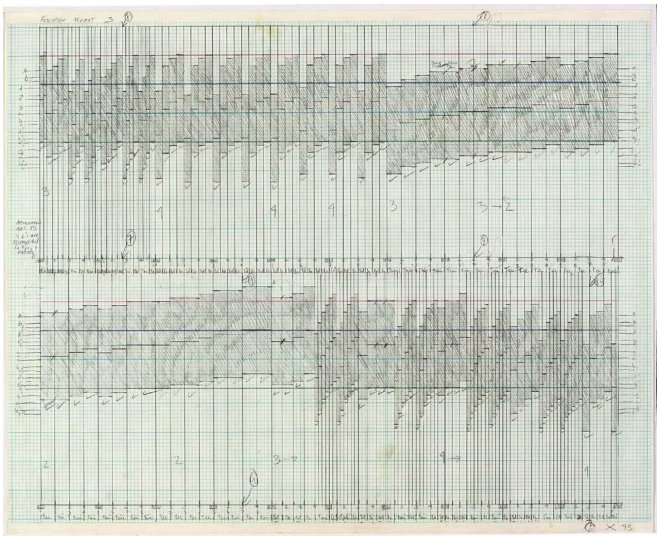
Ox's score 40



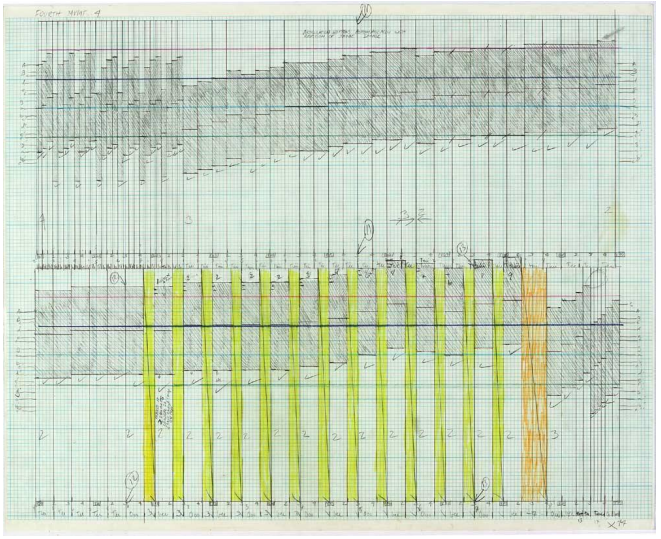
Ox's score 41



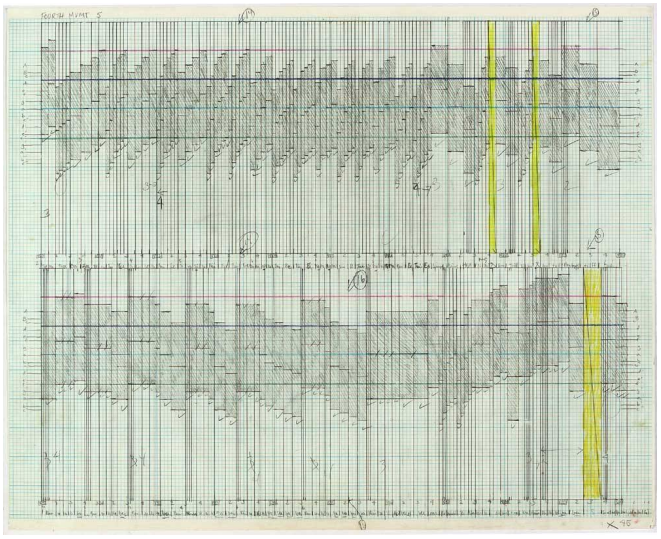
Ox's score 42



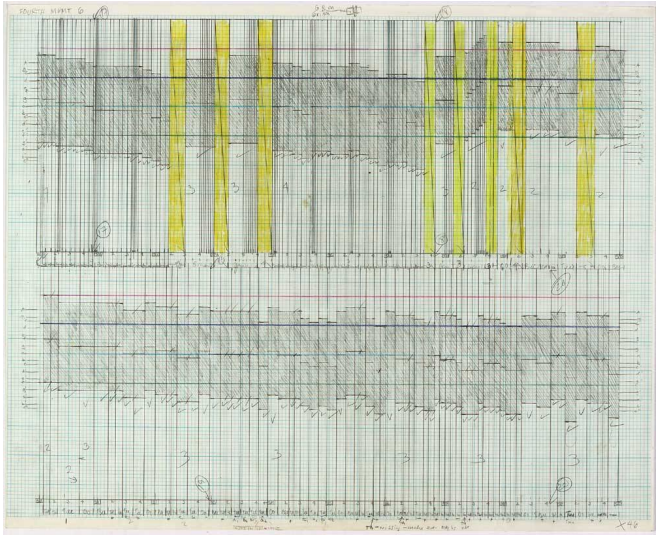
Ox's score 43



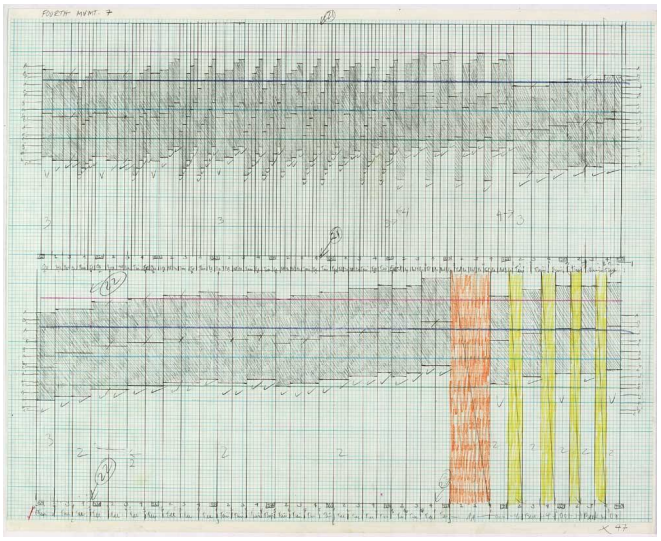
Ox's score 44



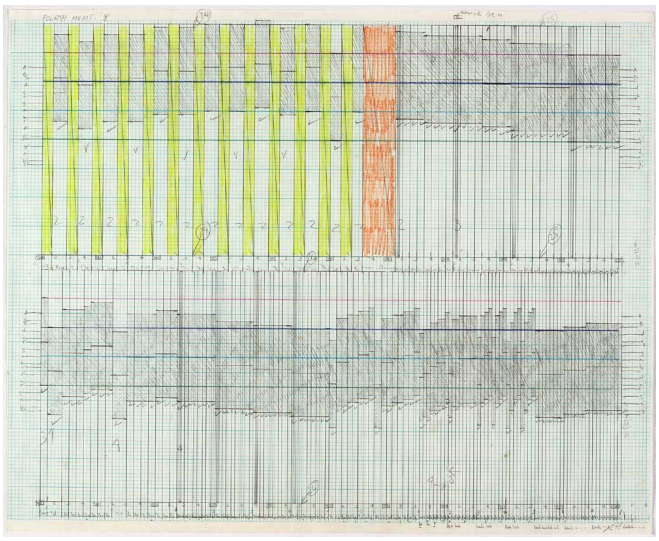
Ox's score 45



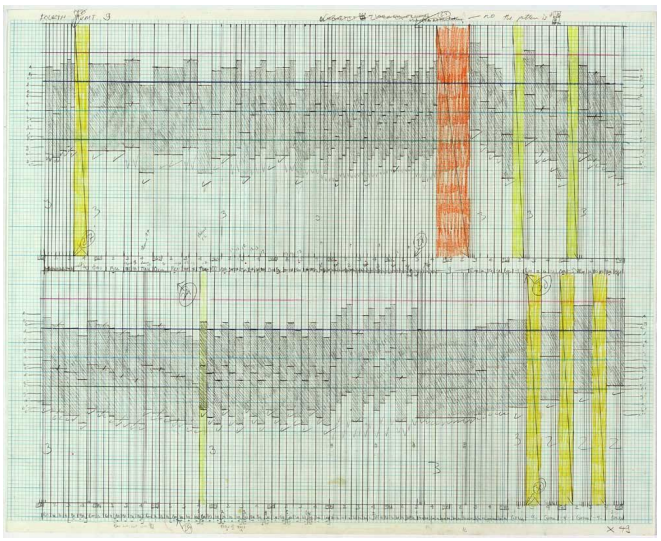
Ox's score 46



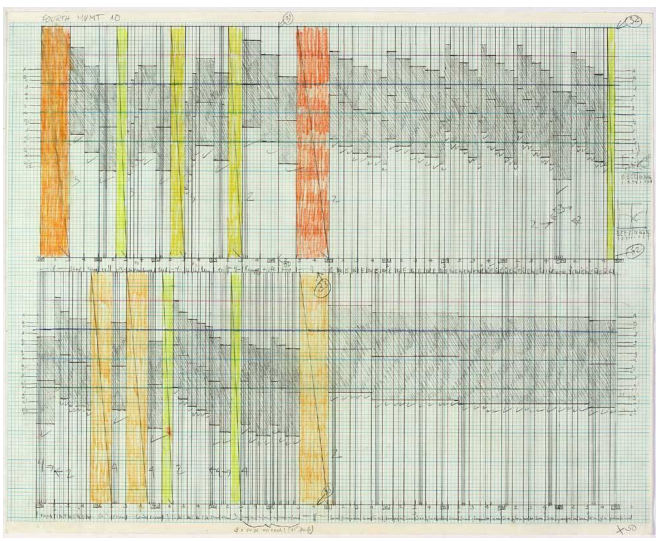
Ox's score 47



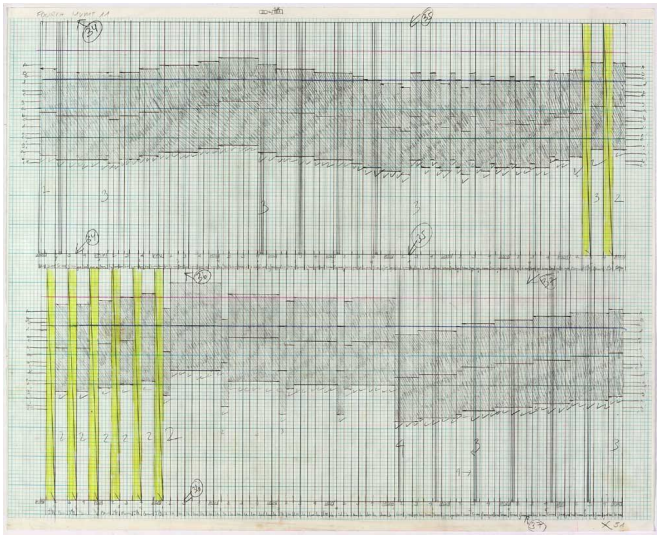
Ox's score 48



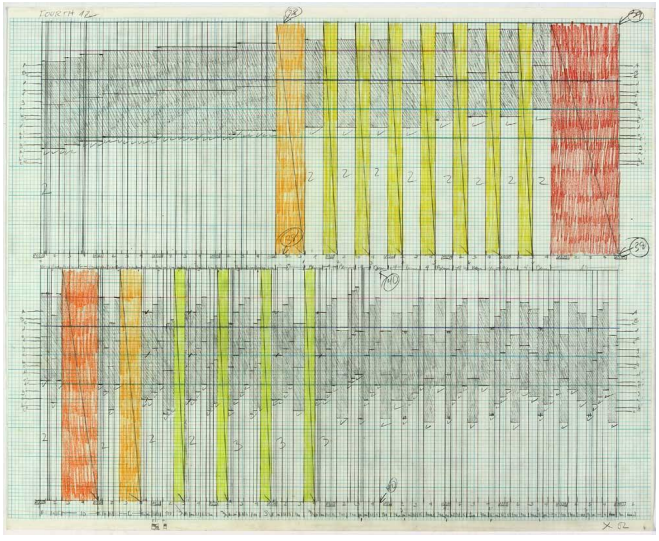
Ox's score 49



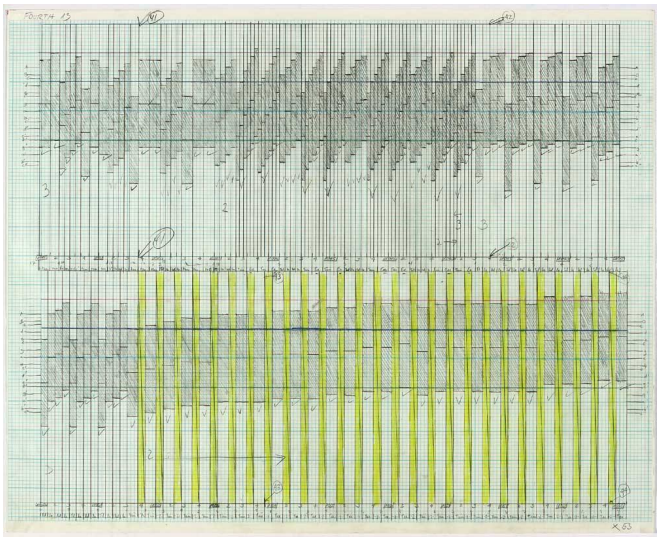
Ox's score 50



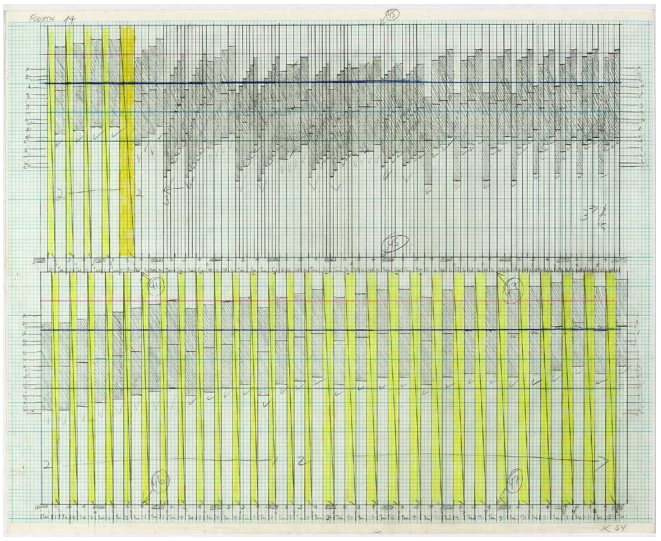
Ox's score 51



Ox's score 52



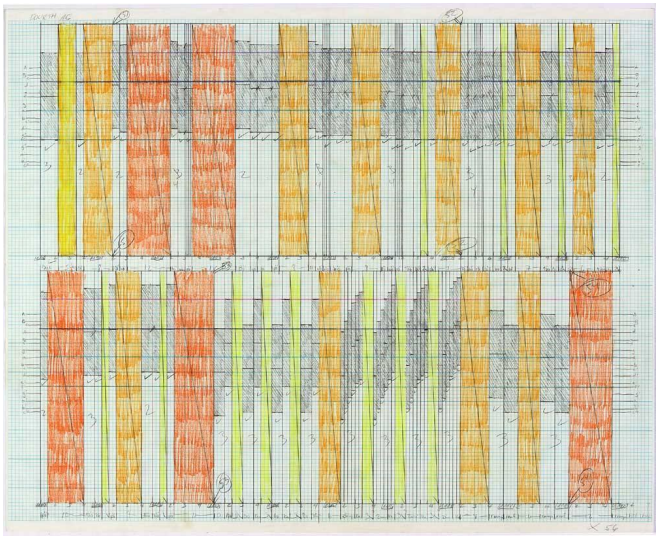
Ox's score 53



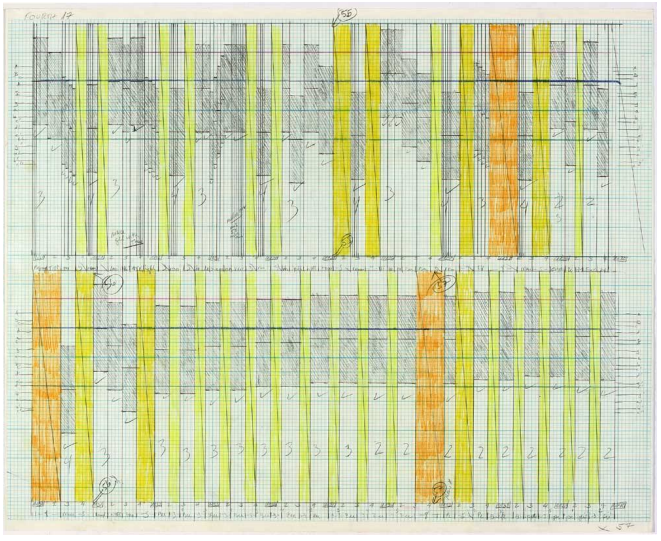
Ox's score 54



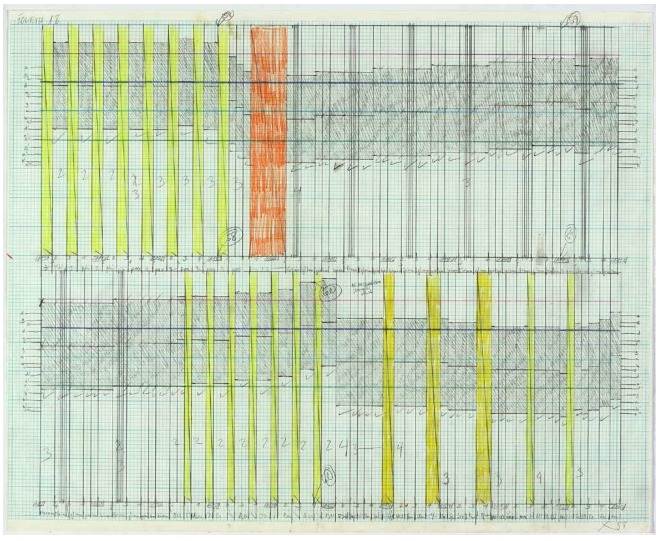
Ox's score 55



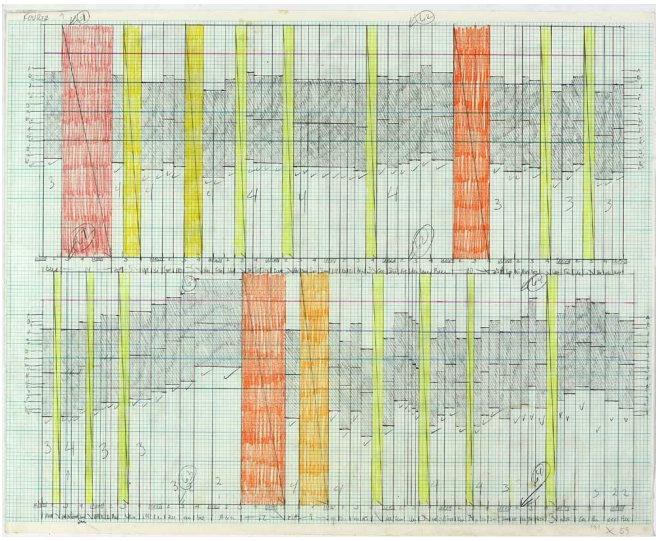
Ox's score 56



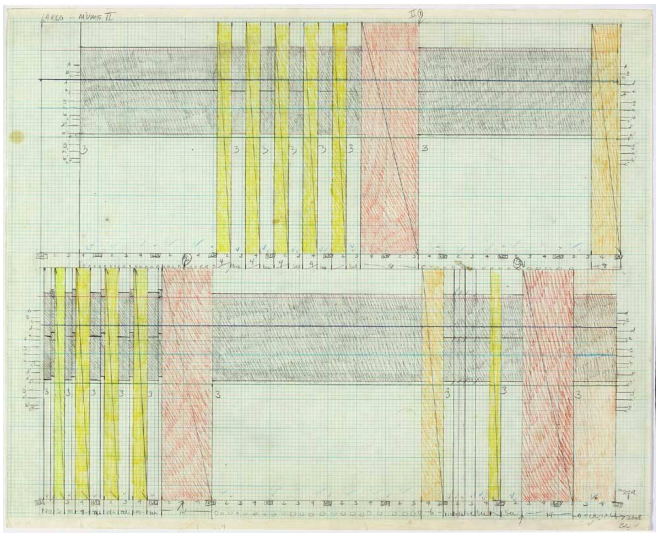
Ox's score 57



Ox's score 58



Ox's score 59

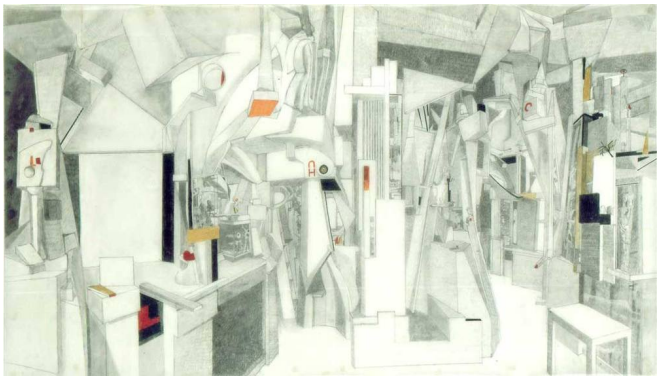


Ox's score 32A

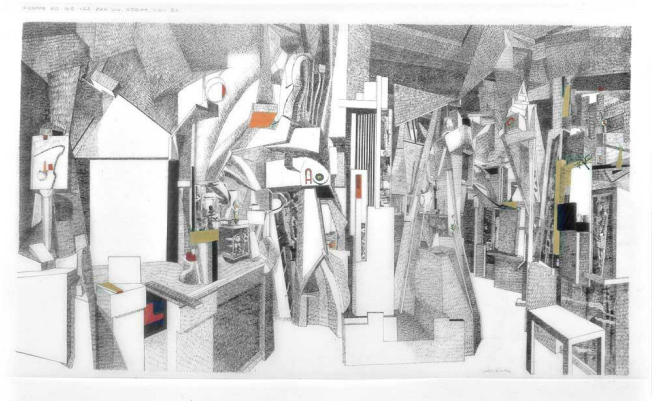
Ursonate — Visual themes (32)

The 16 visual themes Ox used as metaphors for Schwitters' phonetic themes — each drawn in pencil, re-drawn in rapidograph cross-hatching, printed on mylar (XEROX 3060). Prints 88 x 160 cm, © 1992.

Page: https://www.jackox.net/pages/Ursonate/urThIndex.html



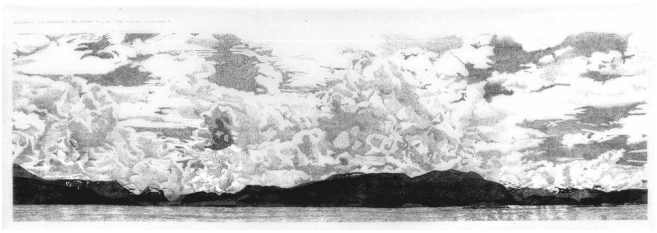
Fumms — pencil drawing



Fumms — rapidograph print on mylar



Dedesnn — pencil drawing



Dedesnn — rapidograph print on mylar



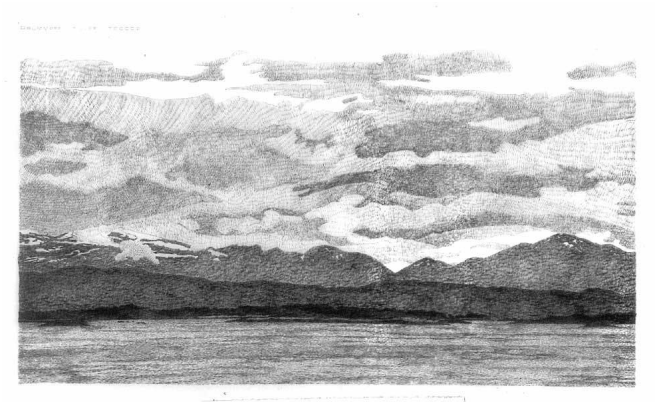
Rinnzeke — pencil drawing



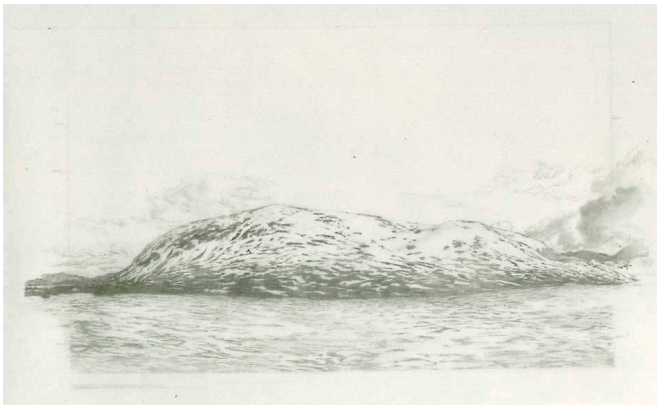
Rinnzeke — rapidograph print on mylar



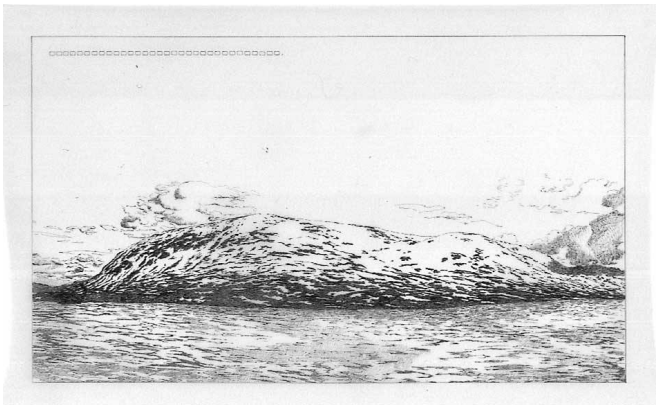
Rrumpff — pencil drawing



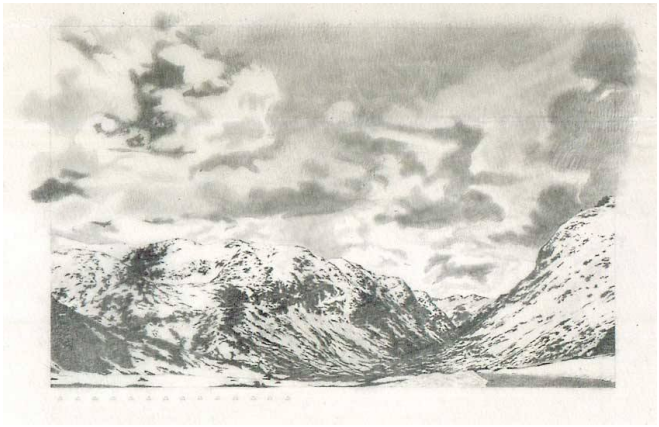
Rrumpff — rapidograph print on mylar



Oooooo — pencil drawing



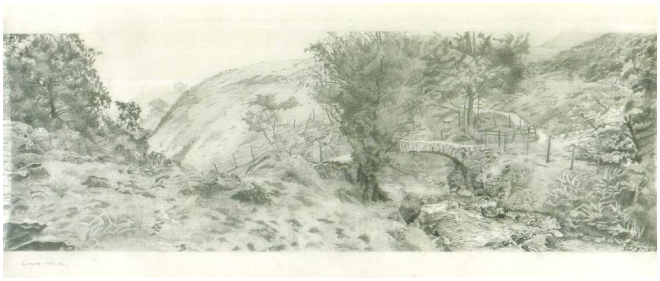
Oooooo — rapidograph print on mylar



Aaaaaa — pencil drawing



Aaaaaa — rapidograph print on mylar



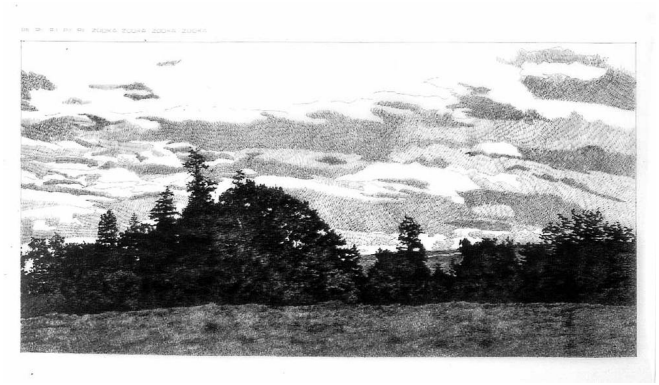
Lanketrr — pencil drawing



Lanketrr — rapidograph print on mylar



PiiPiiPii — pencil drawing



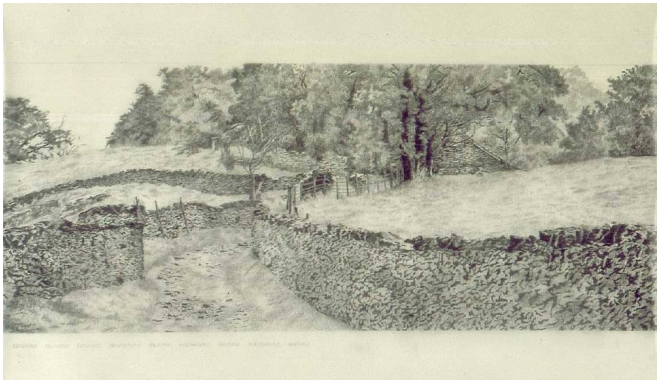
PiiPiiPii — rapidograph print on mylar



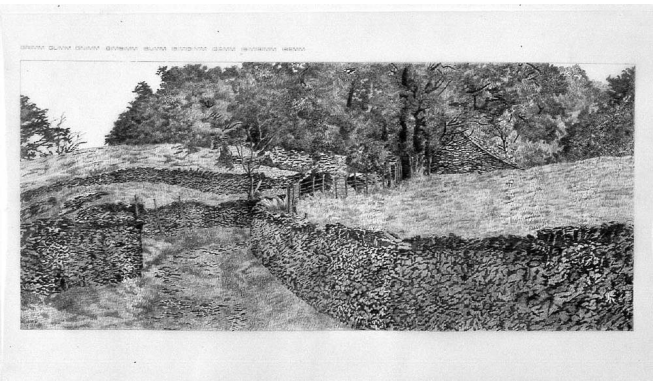
Lumpff — pencil drawing



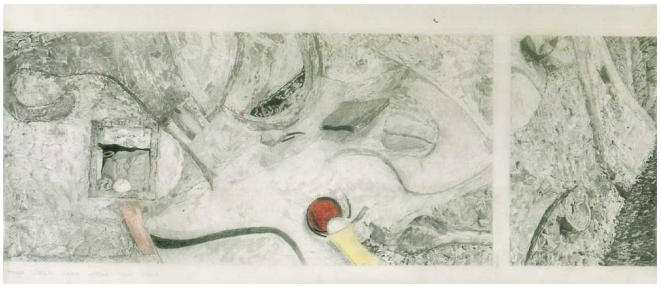
Lumpff — rapidograph print on mylar



GrimGlim — pencil drawing



GrimGlim — rapidograph print on mylar



TillaLoola — pencil drawing



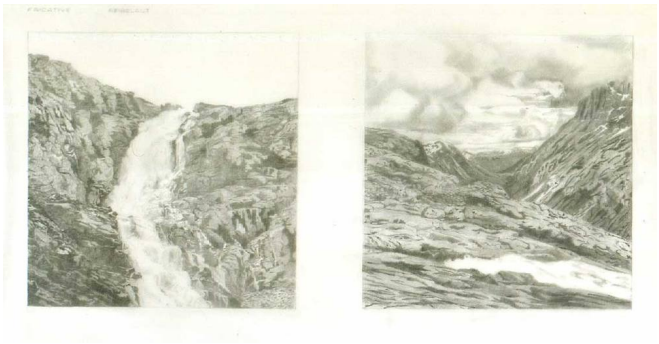
TillaLoola — rapidograph print on mylar



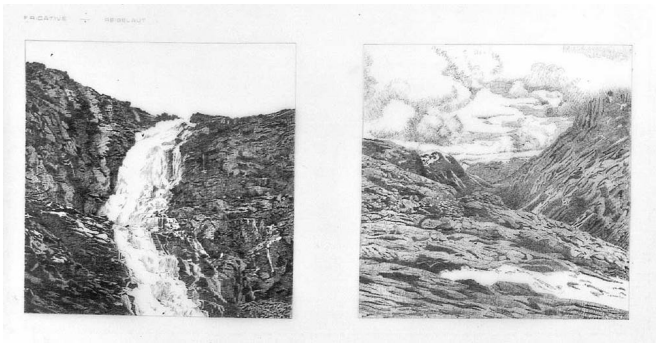
Tattatatta — pencil drawing



Tattatatta — rapidograph print on mylar



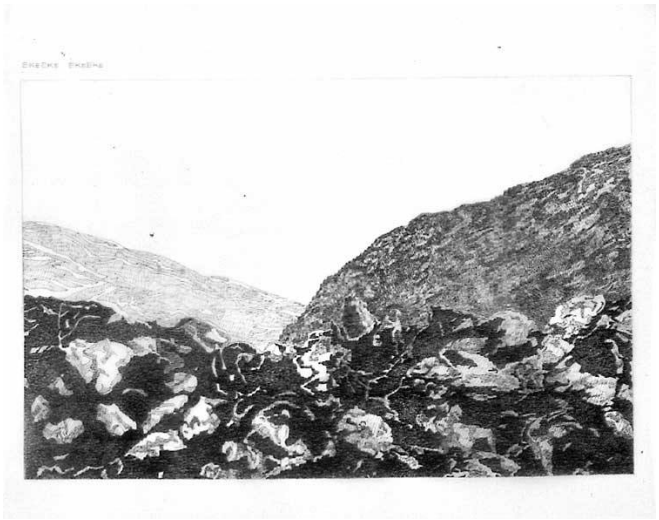
GraaGraa — pencil drawing



GraaGraa — rapidograph print on mylar



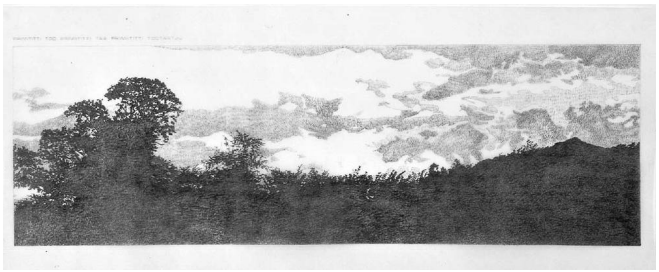
EkeEkeEke — pencil drawing



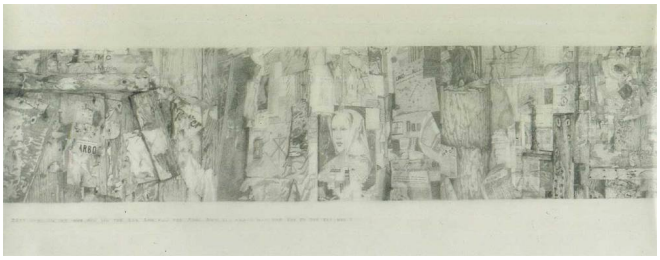
EkeEkeEke — rapidograph print on mylar



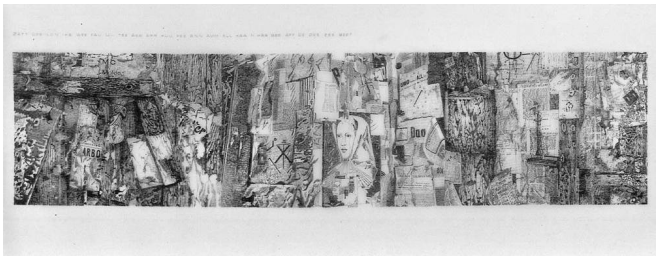
Priimiti — pencil drawing



Priimiti — rapidograph print on mylar



Alphabet — pencil drawing



Alphabet — rapidograph print on mylar

Ursonate — First Movement (1993), section strips

The 1' x 8' painted strips with the visualized phonetics. Each strip has its own recording on the site (not archived).
Page: https://www.jackox.net/pages/Ursonate/UrPaintMv1.html



Movement 1 — sections 1-2



Movement 1 — sections 3-4



Movement 1 — sections 5-6



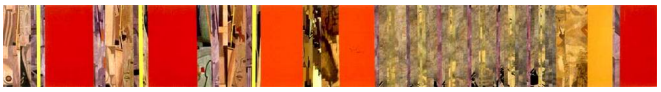
Movement 1 — sections 7-8



Movement 1 — sections 9-10



Movement 1 — sections 11-12



Movement 1 — sections 13-14



Movement 1 — sections 15-16



Movement 1 — sections 17-18



Movement 1 — sections 19-20



Movement 1 — sections 21-22



Movement 1 — sections 23-24



Movement 1 — sections 25-26



Movement 1 — sections 27-28



Movement 1 — sections 29-30



Movement 1 — sections 31-32



Movement 1 — sections 33-34



Movement 1 — sections 35-36



Movement 1 — sections 37-38



Movement 1 — sections 39-40



Movement 1 — sections 41-42



Movement 1 — sections 43-44



Movement 1 — sections 45-46



Movement 1 — sections 47-48



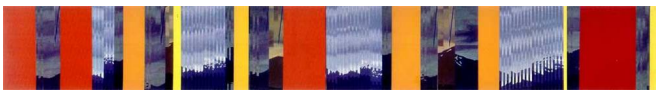
Movement 1 — sections 49-50



Movement 1 — sections 51-52



Movement 1 — sections 53-54



Movement 1 — sections 55-56



Movement 1 — sections 57-58



Movement 1 — sections 59-60



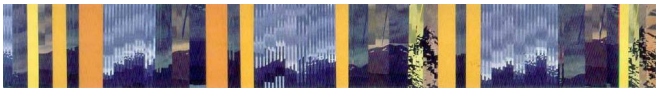
Movement 1 — sections 61-62



Movement 1 — sections 63-64



Movement 1 — sections 65-66



Movement 1 — sections 67-68



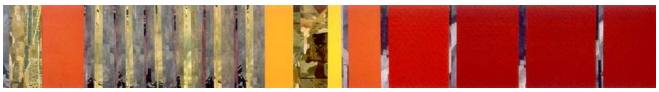
Movement 1 — sections 69-70



Movement 1 — sections 71-72



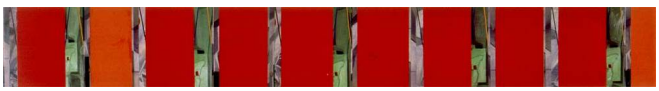
Movement 1 — sections 73-74



Movement 1 — sections 75-76



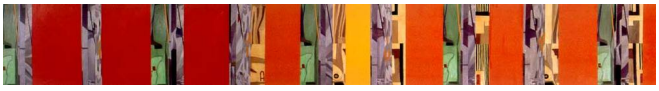
Movement 1 — sections 77-78



Movement 1 — sections 79-80



Movement 1 — sections 81-82



Movement 1 — sections 83-84



Movement 1 — sections 85-86



Movement 1 — sections 87-88



Movement 1 — sections 89-90



Movement 1 — sections 91-92



Movement 1 — sections 93-94



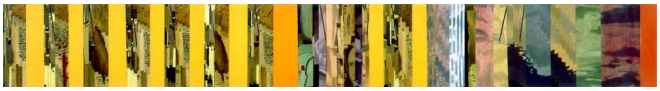
Movement 1 — sections 95-96



Movement 1 — sections 97-98



Movement 1 — sections 99-100



Movement 1 — sections 101-102



Movement 1 — sections 103-104



Movement 1 — sections 105-106



Movement 1 — sections 107-108



Movement 1 — section 109

Ursonate — Second Movement — Adagio (1994), section strips

The 1' x 8' painted strips with the visualized phonetics. Each strip has its own recording on the site (not archived).
Page: https://www.jackox.net/pages/Ursonate/UrPaintMv2.html



Movement 2 — sections 1-2



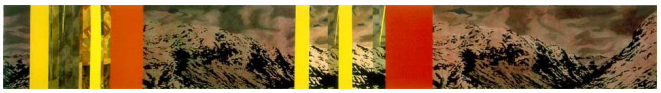
Movement 2 — sections 3-4



Movement 2 — sections 5-6



Movement 2 — sections 7-8



Movement 2 — sections 9-10



Movement 2 — sections 11-12



Movement 2 — sections 13-14



Movement 2 — sections 15-16

Ursonate — Third Movement — Scherzo and Trio (1994), section strips

The 1' x 8' painted strips with the visualized phonetics. Each strip has its own recording on the site (not archived).
Page: https://www.jackox.net/pages/Ursonate/UrPaintMv3.html



Movement 3 — sections 1-2



Movement 3 — sections 3-4



Movement 3 — sections 5-6



Movement 3 — sections 7-8



Movement 3 — sections 9-10



Movement 3 — sections 11-12



Movement 3 — section 13

Ursonate — Fourth Movement — presto (1994), section strips

The 1' x 8' painted strips with the visualized phonetics. Each strip has its own recording on the site (not archived).
Page: https://www.jackox.net/pages/Ursonate/UrPaintMv4.html



Movement 4 — sections 1-2



Movement 4 — sections 3-4



Movement 4 — sections 5-6



Movement 4 — sections 7-8



Movement 4 — sections 9-10



Movement 4 — sections 11-12



Movement 4 — sections 13-14



Movement 4 — sections 15-16



Movement 4 — sections 17-18



Movement 4 — sections 19-20



Movement 4 — sections 21-22



Movement 4 — sections 23-24



Movement 4 — sections 25-26



Movement 4 — sections 27-28



Movement 4 — sections 29-30



Movement 4 — sections 31-32



Movement 4 — sections 33-34



Movement 4 — sections 35-36



Movement 4 — sections 37-38



Movement 4 — sections 39-40



Movement 4 — sections 41-42



Movement 4 — sections 43-44



Movement 4 — sections 45-46



Movement 4 — sections 47-48



Movement 4 — sections 49-50



Movement 4 — sections 51-52



Movement 4 — sections 53-54



Movement 4 — sections 55-56



Movement 4 — sections 57-58



Movement 4 — sections 59-60



Movement 4 — sections 61-62



Movement 4 — sections 63-64



Movement 4 — section 65

Ursonate — Installation shots

Exhibition installations: Contemporary Arts Center New Orleans 2004 and Mesa Library Gallery, Los Alamos 2011.
Page: https://www.jackox.net/pages/Ursonate/UrInstal1.html



First Movement installed, Contemporary Arts Center New Orleans, 2004



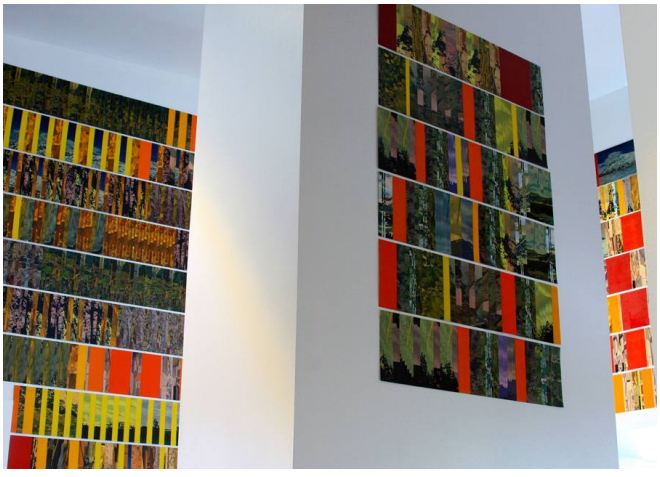
Fourth Movement installed, CAC New Orleans, 2004



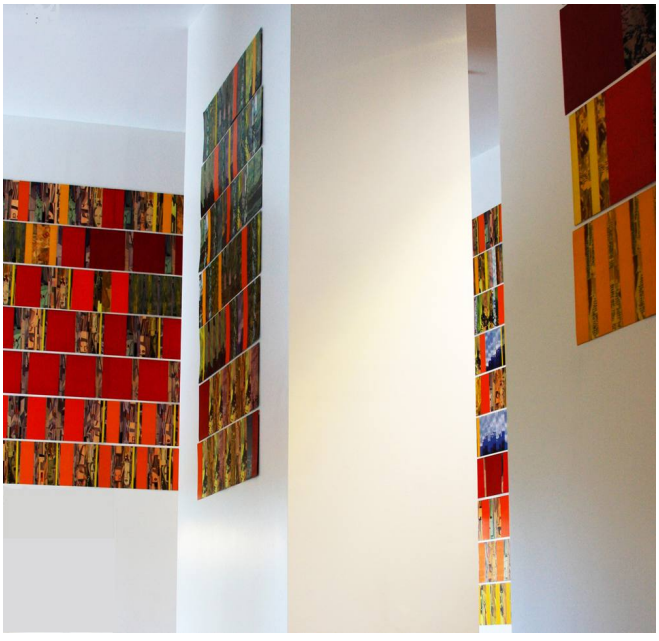
Mesa Library Gallery, Los Alamos, 2011 (photo: Leslie Bucklin)



Mesa Library Gallery, Los Alamos, 2011 (photo: Leslie Bucklin)



Mesa Library Gallery, Los Alamos, 2011 (photo: Leslie Bucklin)

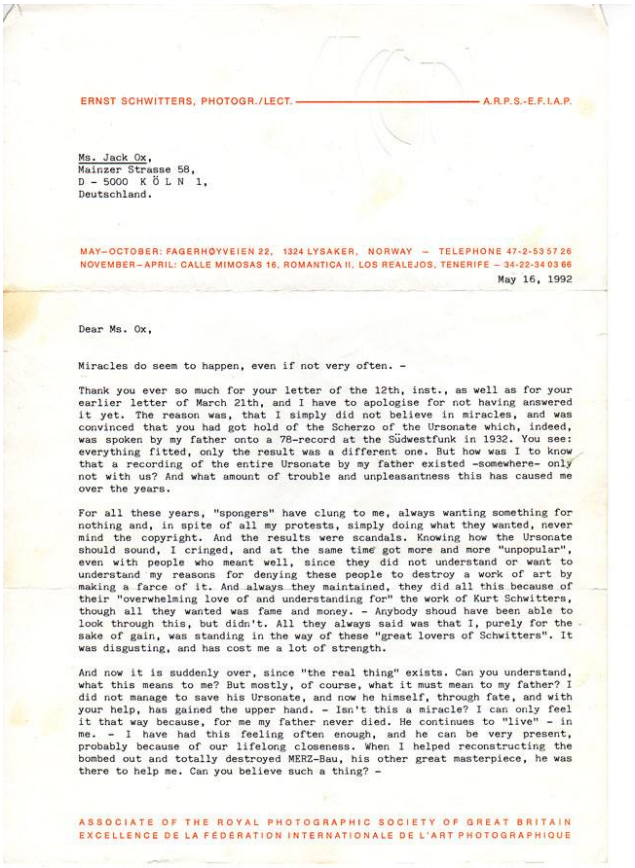


Mesa Library Gallery, Los Alamos, 2011 (photo: Leslie Bucklin)

Ursonate — Documents (letter, charts, press)

Ernst Schwitters' letter documenting the WERGO source recording, vowel phonetics charts from the 1993 Leonardo process article, and the 2011 THE Magazine feature.

Page: https://www.jackox.net/pages/Ursonate/ErnstLetter.html



ERNST SCHWITTERS, PHOTOGR./LECT. — A.R.P.S.-E.F.I.A.P.

Ms. Jack Ox,
Mainzer Strasse 58,
D - 5000 K Ö L N 1,
Deutschland.

MAY–OCTOBER: FAGERHØYVEIEN 22, 1324 LYSAKER, NORWAY – TELEPHONE 47-2-53 57 26
NOVEMBER–APRIL: CALLE MIMOSAS 16, ROMANTICA II, LOS REALEJOS, TENERIFE – 34-22-34 03 66

May 16, 1992

Dear Ms. Ox,

Miracles do seem to happen, even if not very often. -

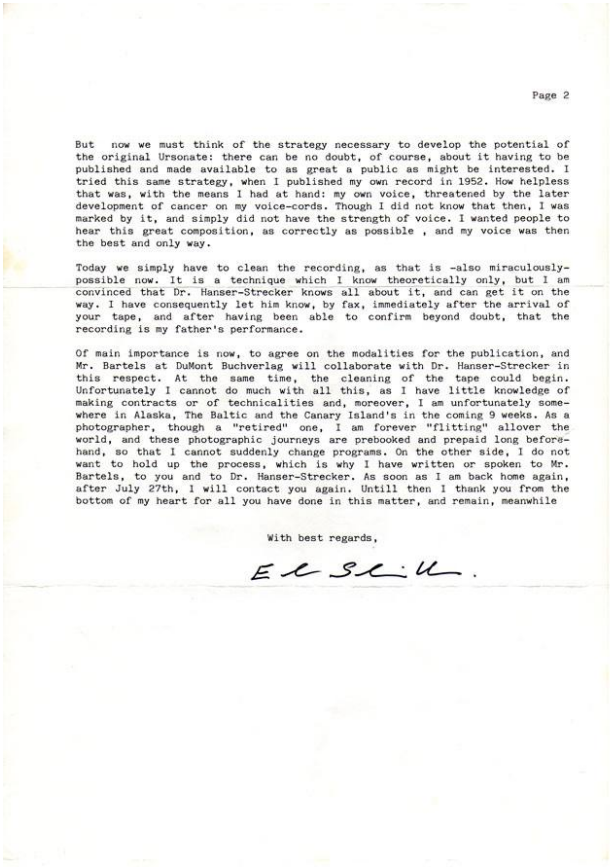
Thank you ever so much for your letter of the 12th, inst., as well as for your earlier letter of March 21th, and I have to apologise for not having answered it yet. The reason was, that I simply did not believe in miracles, and was convinced that you had got hold of the Scherzo of the Ursonate which, indeed, was spoken by my father onto a 78-record at the Südwestfunk in 1932. You see: everything fitted, only the result was a different one. But how was I to know that a recording of the entire Ursonate by my father existed -somewhere- only not with us? And what amount of trouble and unpleasantness this has caused me over the years.

For all these years, "spongers" have clung to me, always wanting something for nothing and, in spite of all my protests, simply doing what they wanted, never mind the copyright. And the results were scandals. Knowing how the Ursonate should sound, I cringed, and at the same time got more and more "unpopular", even with people who meant well, since they did not understand or want to understand my reasons for denying these people to destroy a work of art by making a farce of it. And always they maintained, they did all this because of their "overwhelming love of and understanding for" the work of Kurt Schwitters, though all they wanted was fame and money. - Anybody shoud have been able to look through this, but didn't. All they always said was that I, purely for the sake of gain, was standing in the way of these "great lovers of Schwitters". It was disgusting, and has cost me a lot of strength.

And now it is suddenly over, since "the real thing" exists. Can you understand, what this means to me? But mostly, of course, what it must mean to my father? I did not manage to save his Ursonate, and now he himself, through fate, and with your help, has gained the upper hand. - Isn't this a miracle? I can only feel it that way because, for me my father never died. He continues to "live" - in me. - I have had this feeling often enough, and he can be very present, probably because of our lifelong closeness. When I helped reconstructing the bombed out and totally destroyed MERZ-Bau, his other great masterpiece, he was there to help me. Can you believe such a thing? -

ASSOCIATE OF THE ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN
EXCELLENCE DE LA FEDERATION INTERNATIONALE DE L'ART PHOTOGRAPHIQUE

Ernst Schwitters' letter of documentation, p.1



Page 2

But now we must think of the strategy necessary to develop the potential of the original Ursonate: there can be no doubt, of course, about it having to be published and made available to as great a public as might be interested. I tried this same strategy, when I published my own record in 1952. How helpless that was, with the means I had at hand: my own voice, threatened by the later development of cancer on my voice-cords. Though I did not know that then, I was marked by it, and simply did not have the strength of voice. I wanted people to hear this great composition, as correctly as possible , and my voice was then the best and only way.

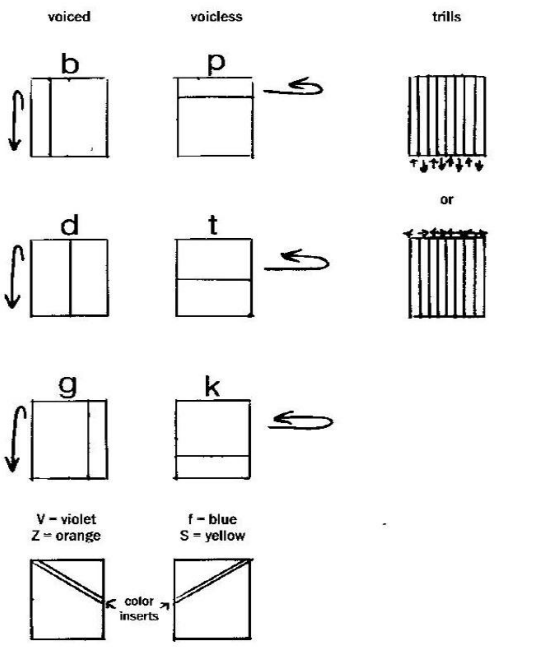
Today we simply have to clean the recording, as that is -also miraculously- possible now. It is a technique which I know theoretically only, but I am convinced that Dr. Hanser-Strecker knows all about it, and can get it on the way. I have consequently let him know, by fax, immediately after the arrival of your tape, and after having been able to confirm beyond doubt, that the recording is my father's performance.

Of main importance is now, to agree on the modalities for the publication, and Mr. Bartels at DuMont Buchverlag will collaborate with Dr. Hanser-Strecker in this respect. At the same time, the cleaning of the tape could begin. Unfortunately I cannot do much with all this, as I have little knowledge of making contracts or of technicalities and, moreover, I am unfortunately somewhere in Alaska, The Baltic and the Canary Island's in the coming 9 weeks. As a photographer, though a "retired" one, I am forever "flitting" allover the world, and these photographic journeys are prebooked and prepaid long beforehand, so that I cannot suddenly change programs. On the other side, I do not want to hold up the process, which is why I have written or spoken to Mr. Bartels, to you and to Dr. Hanser-Strecker. As soon as I am back home again, after July 27th, I will contact you again. Untill then I thank you from the bottom of my heart for all you have done in this matter, and remain, meanwhile

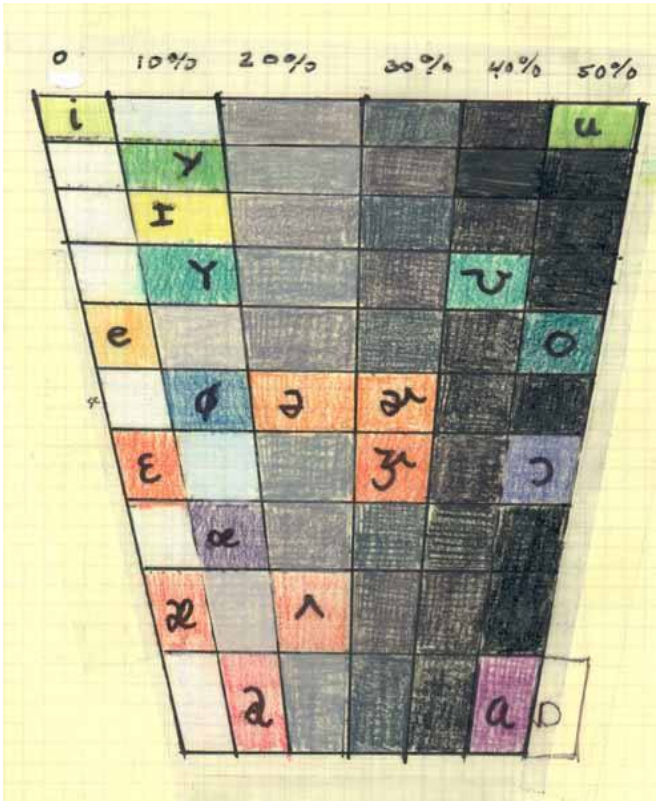
With best regards,

E. Schwitters.

Ernst Schwitters' letter of documentation, p.2



Phonetic vowel chart for Schwitters' Ursonate



Vowel color-glazing chart



JACK OX: URSONATE

MESA PUBLIC LIBRARY
2400 CENTRAL AVENUE, LOS ALAMOS

AN EIGHT HUNDRED-SQUARE-FOOT VISUAL translation of Kurt Schwitters' text/sound piece, *Ursonate*, by Jack Ox, is rendered in oil paint on one-foot-by-four-foot Mylar strips. These are mounted continuously to form four large panels high on the walls of the gallery/reading room of the Antoine Predock–designed Mesa Public Library in Los Alamos. The cathedral-like space, with views of the Jemez Mountains, enhances the sense of something complex and enduring. Ox has been making such work for years. Her renditions of musical scores include a Bruckner symphony and Debussy's *Nuages*. The painting has been shown in Prague, Paris, and Lodz, Poland, and at the Albuquerque Museum in 2010, and is worth looking at simply on its own. Sometimes, however, a little background enhances appreciation.

German artist Kurt Schwitters (1887-1948) worked in painting, collage, sculpture, graphics, typography, and proto-installation art. From 1922 to 1932 he worked on *Ursonate*—performing it many times under different conditions. The "Ur" in the name suggests a primal or pre-grammatical use of basic sounds of language. Schwitters used German phonemes and structured the work in the classic four-movement sonata form. The only remaining trace of *Ursonate* had been as a visual poem by Swiss typographer Jan Tschichold until Ox uncovered the only extant recording of Schwitters performing *Ursonate* (now available on the Wergo label), which is the basis for this painting. Ox undertook an analysis of the composition at the Phonetics Institute in Cologne, and studied places where Schwitters lived in Germany, Norway, and England.

Each theme in the sonata has a corresponding image based on one of these landscapes, documented through photographs or Schwitters' own paintings. Ox calls these "cognitive space transfer metaphors." The other image sources come from *Merzbau*, ambitious constructions in which Schwitters radically transformed house interiors. Shapes from *Merzbau* are used in Ox's composition to indicate specific consonant sounds. Vertical blocks of solid flat colors represent silences or pauses; a systematic glazing schema corresponds to vowel tonal quality. Although computers are involved in each stage, this is not "computer art." It may be obvious that a system underlies the work, but it is by no means transparent what that system is. I find both of these qualities laudable. Ox's long-term intention is not only to produce individual works, but to create tools for this kind of intermedia activity by other artists. She is currently writing a dissertation delineating the theories behind it.

Dick Higgins coined the term "intermedia" in the 1960s, when artists began using data from one input (sonic, visual, numerical, social) to generate patterns in another form. Emblematic of the genre was David Behrman's *Cloud Music*, in which data from a video camera pointed at the sky went to a video analyzer that generated control voltages proportional to the light values. A digital sound system sensed voltage changes and converted them into harmonic progressions and dynamic shifts—music!

On September 17th, in conjunction with the exhibition, a live performance was given at the Mesa Library. Kristen Loree performed the score vocally, while Ox sequentially projected the frames of the painting that represent what was being "sung." Professional actress Loree had been performing *Ursonate* for some time before getting together with Ox to collaborate on this rendition, which premiered at Seattle Chapel Performance Space in 2009.

There is always some interplay, even tension, between a system of notation designed to convey intention and ensure consistency and the variations—deliberate or inadvertent—that a performer adds to any rendition. In *Ursonate*, this produces an odd exhilaration, opening up new avenues of perception and attention for the audience. Loree's vocalization ranges from quasi-singing to something that I experienced as being like speech in aggressive Norwegian (though of course a Norwegian would hear only nonsense). As her versatile, sylvan voice travels through the score, one begins to visually recognize recurring sound-shapes, getting a taste of that relatively rare cognitive condition or ability called synaesthesia. Schwitters' training at the Dresden Academy included applied arts, drafting, and understanding of machines, which later helped him earn a living. But this fecund artist also invented his own genres and movements. He developed an alternative Dadaism he called "Merz," publishing a magazine of that title from 1922-1932. The last issue contained Tschichold's rendering of the *Ursonate* score. After being condemned as "decadent" by the Nazis, Schwitters fled to Norway in 1937, and settled in England in 1940. That fugue, and the constant transit, transition, and translation that was Schwitters's life and work—from one country to another, one medium to another, one language to another—are lucidly reflected in this collaboration.

The painting is a visual interpretation of a copy of an iteration, a fractured palimpsest reassembled in mosaic form; the performance a time-based rendering of that mosaic. Multiplicities of iteration, representation, and interpretation sing and signal to us from the mysterious realm of metamorphosis. The painting functions beautifully on its own as a visual display; the vocalization can be experienced as a lovely sound experience on its own. But the intermarriage of disciplines undertaken here is more than the sum of its parts.

—MARINA LA PALMA

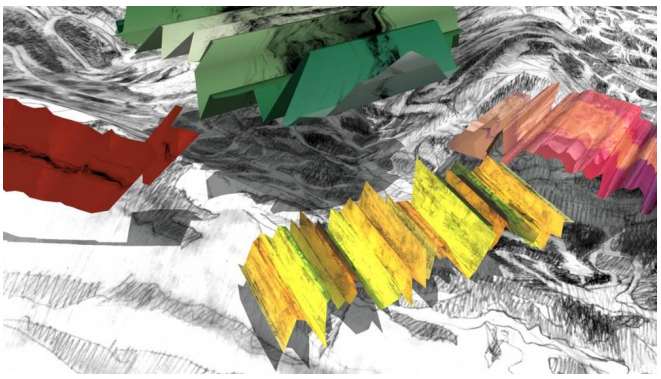
Jack Ox, detail from *Ursonate*: an 800-square-foot visualization of Kurt Schitters' phonetic sound poem in sonata form. Photo: Leslie Bodkin

Jack Ox: Ursonate, THE Magazine, Marina La Palma, Oct 2011

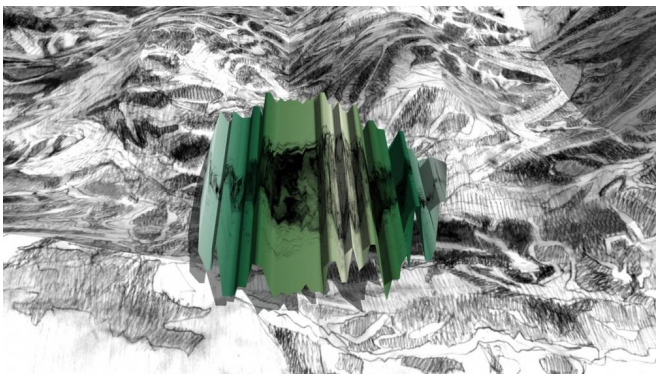
Sound Objects — 3D models from Alvin Curran's Disklavier files

Over 200 of Alvin Curran's Disklavier sound files (coins thrown, elephant trumpet, Maria Callas singing, teakettle and more), hand-modeled in Maya by Ox (no programming — handmade in a digital medium) for the 21st Century Virtual Color Organ — pitch changes on the front of each unit, dynamics on the top, colors from the Book of Timbre. A selection of 18 renders from the Gridjam slideshow; the complete model set is not yet in the archive.

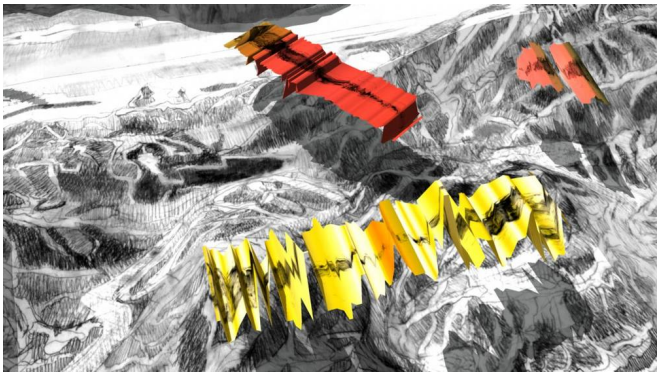
Page: https://intermediaprojects.org/pages/GridjamSLideshow.html



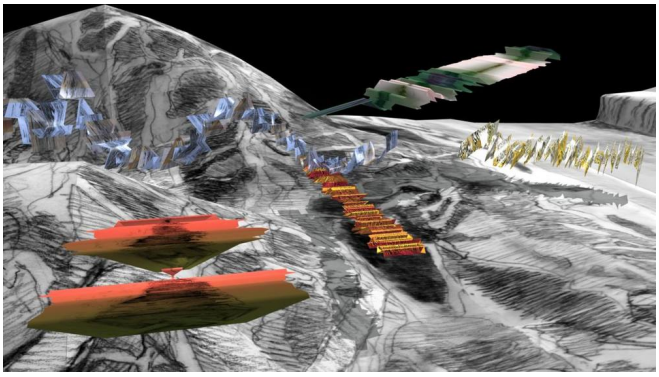
3D sound object render (Gridjam slideshow)



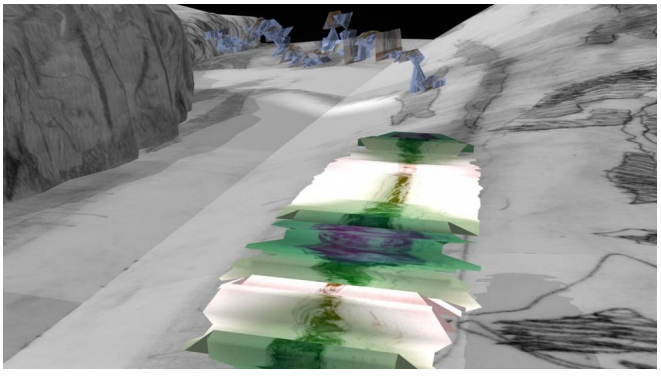
3D sound object render (Gridjam slideshow)



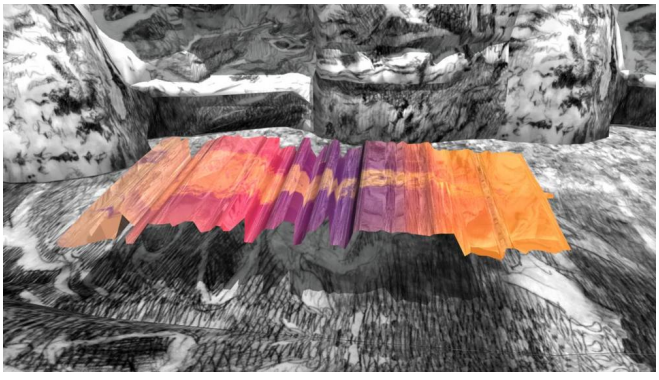
Maria Callas singing — 3D sound object



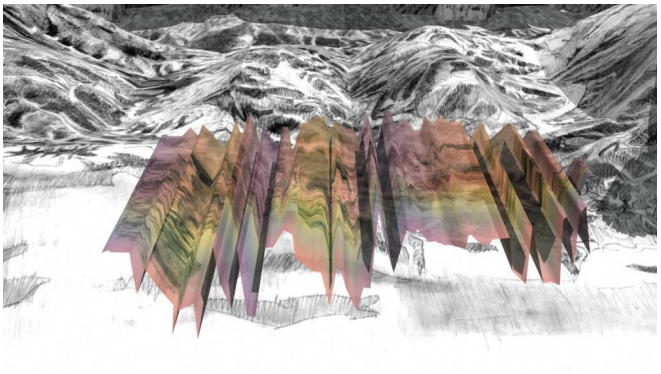
Coins thrown — 3D sound object



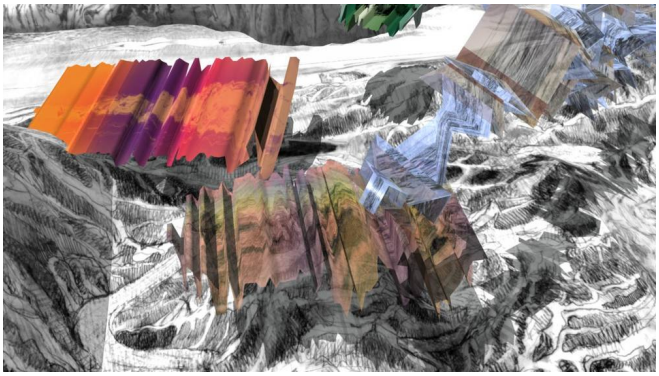
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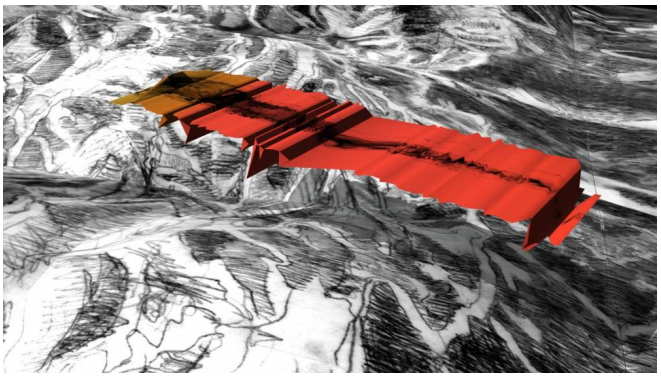
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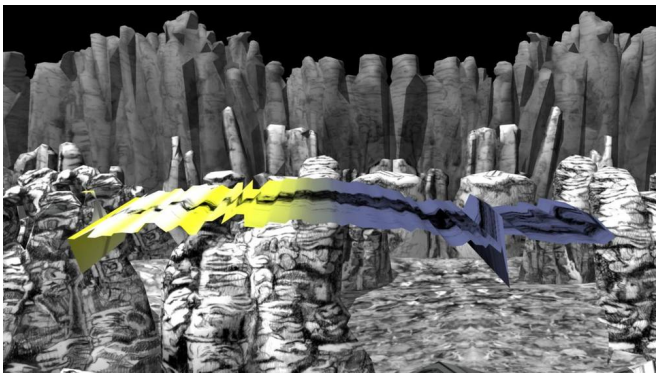
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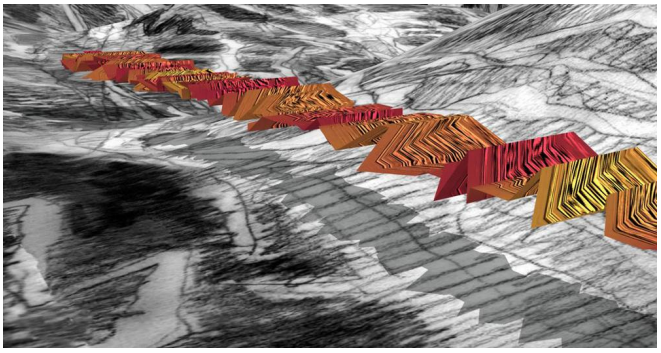
3D sound object render (Gridjam slideshow)



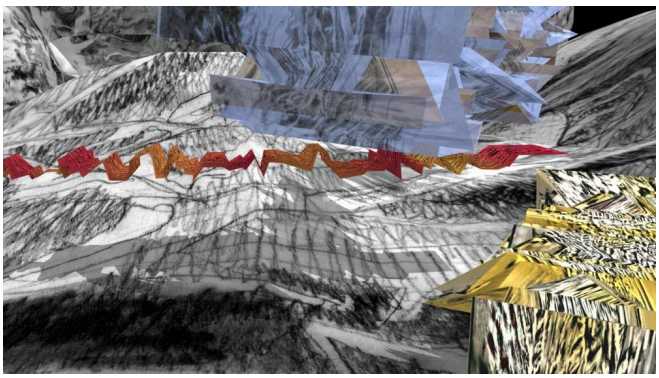
Maria Callas singing — 3D sound object



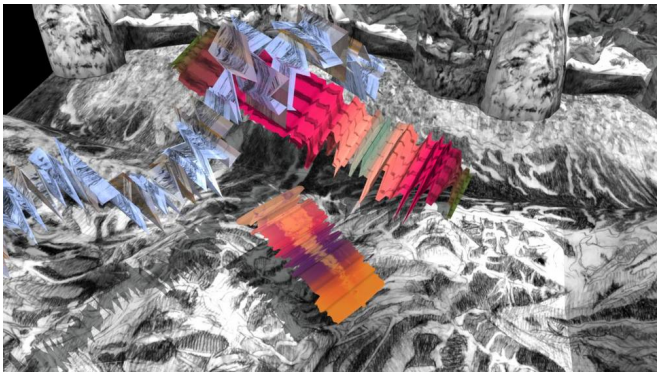
3D sound object render (Gridjam slideshow)



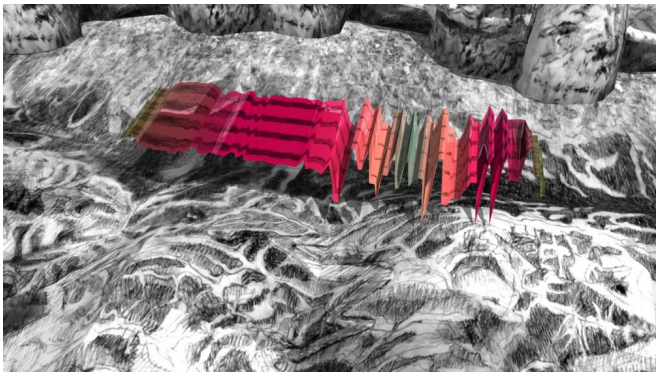
3D sound object render (Gridjam slideshow)



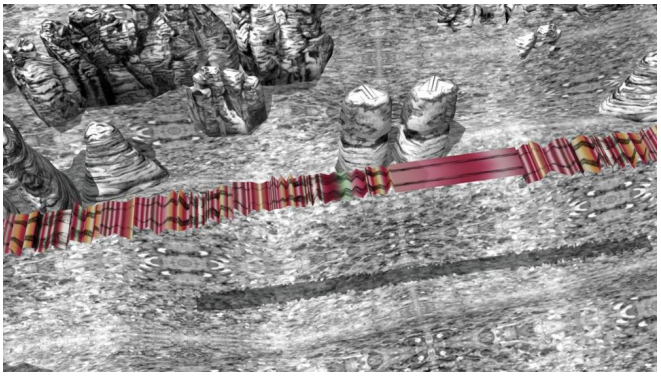
Coins — 3D sound object



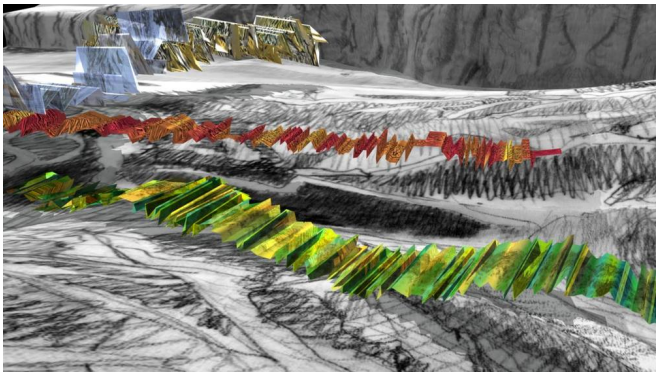
3D sound object render (Gridjam slideshow)



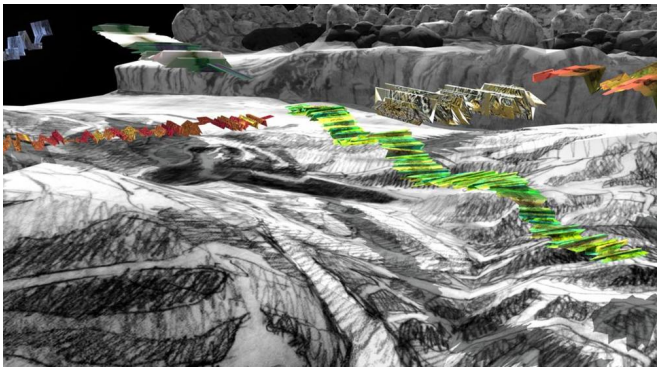
3D sound object render (Gridjam slideshow)



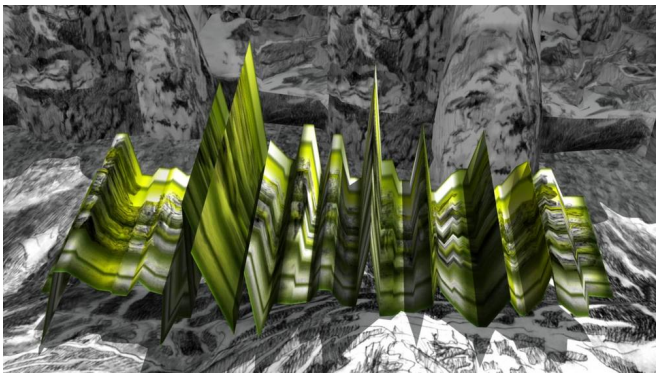
Piano tuner — 3D sound object



3D sound object render (Gridjam slideshow)



3D sound object render (Gridjam slideshow)



Teakettle whistle — 3D sound object

Bruckner — Eighth Symphony, twelve paintings (1983–1990)

From The Systematic Translation of Anton Bruckner's Eighth Symphony into a Series of Thirteen Paintings (Bruckner-Symposion, Linz 1990). Three paintings per movement, each shown with all of its linked working drawings. Note: a law firm bought the third painting and would not lend it for the complete-symphony exhibition at the Neue Galerie, Linz, so Ox painted a replacement and designated the original a sketch -- making thirteen in the series.

Page: https://www.jackox.net/pages/bruckner/bruckner1.html



Bruckner Eighth — First painting, first movement (first theme) (c)1983, 47″×182″, oil on fibreglass strips on wood



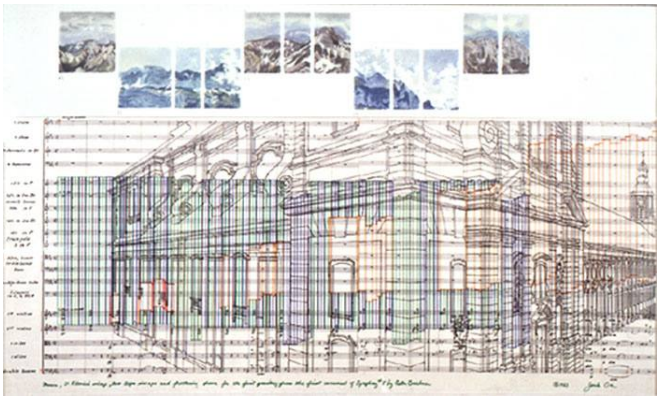
Original architectural drawing of St. Florian's Monastery



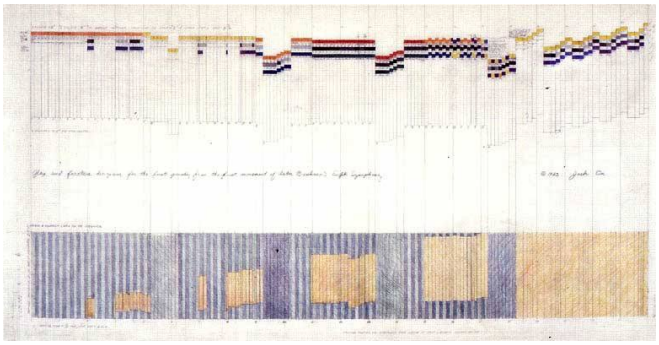
Architecture over first half of music.



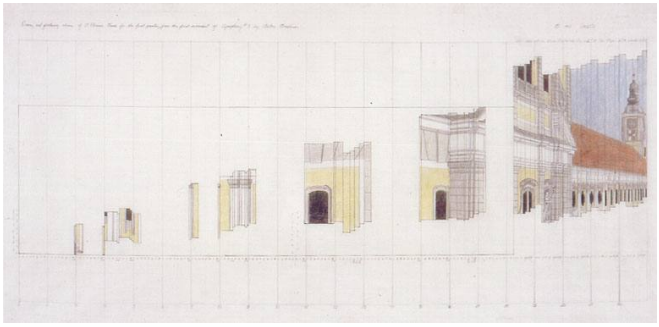
Architecture over second half of music.



Architecture, music, Alpine images, and fracturing and cutting pattern



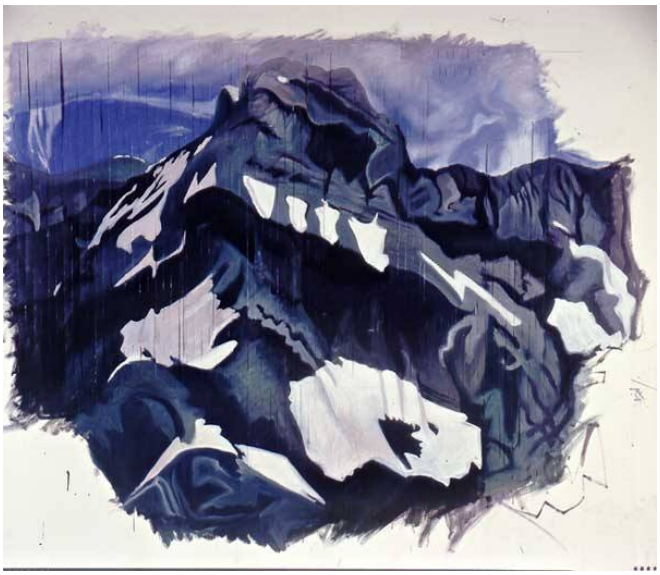
Fracturing and cutting pattern with glazing information.



Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



Actual painted strips on wall before restructuring into final work



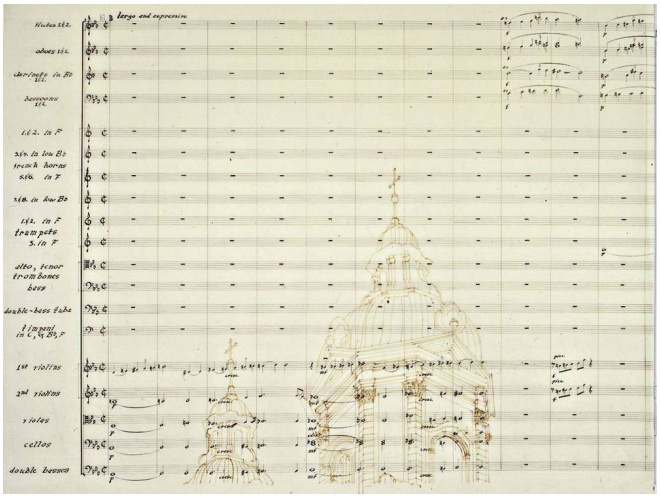
Actual painted strips on wall before restructuring into final work



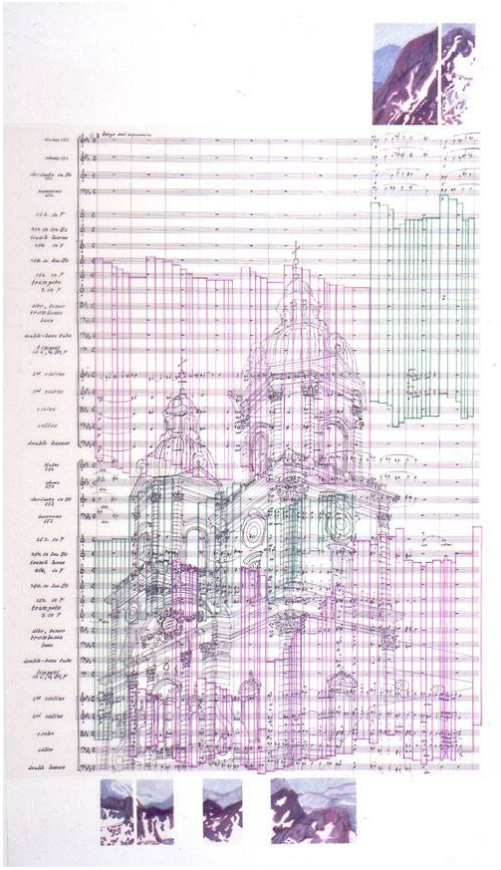
Bruckner Eighth — Second painting, first movement (second theme)
(c)1984, 48″×180.5″, oil on fibreglass strips on wood



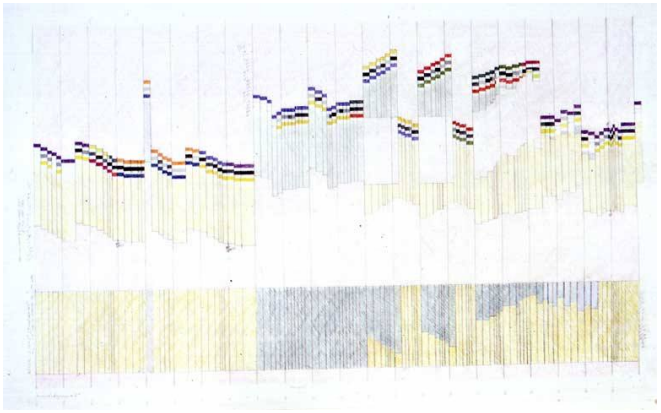
Original architectural drawing of St. Florian's Monastery



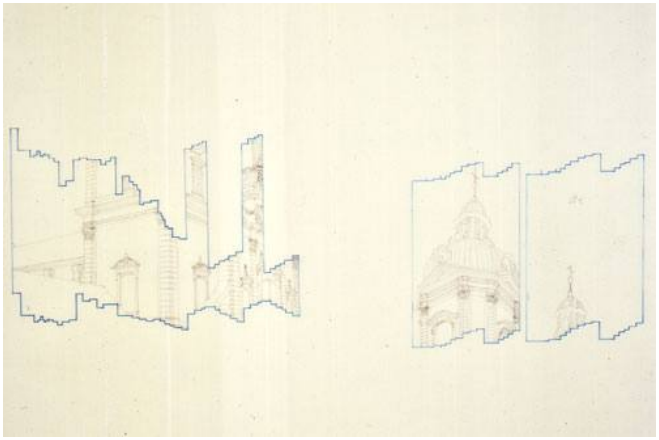
Architecture over first half of music.



Architecture, music, Alpine images, and fracturing and cutting pattern



Fracturing and cutting pattern with glazing information.



Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



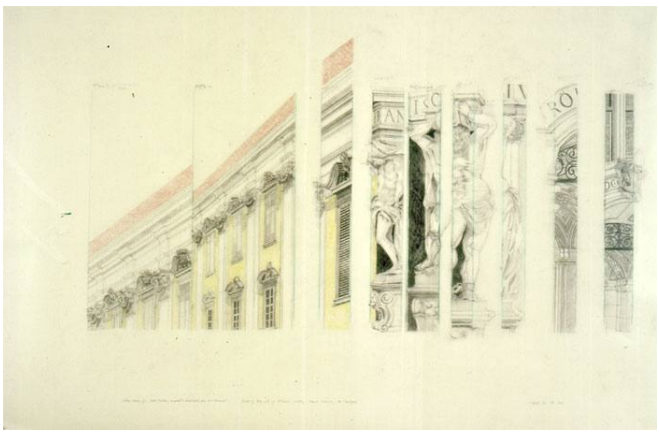
Actual painted strips on wall before restructuring into final work



Actual painted strips on wall before restructuring into final work



Bruckner Eighth — Third painting, first movement (third theme) (c)1983, 48″×180″, oil on fibreglass strips on vinyl



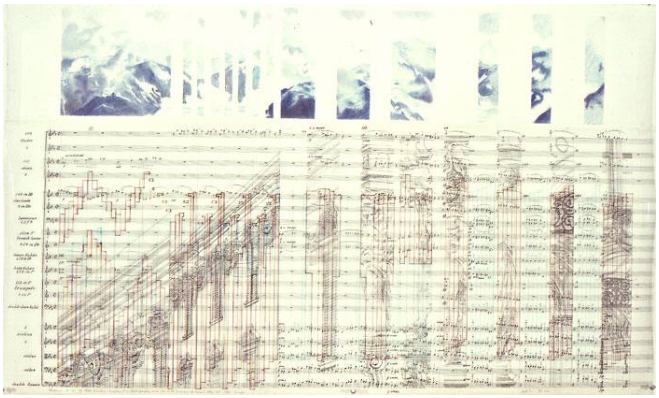
Original architectural drawing of St. Florian's Monastery



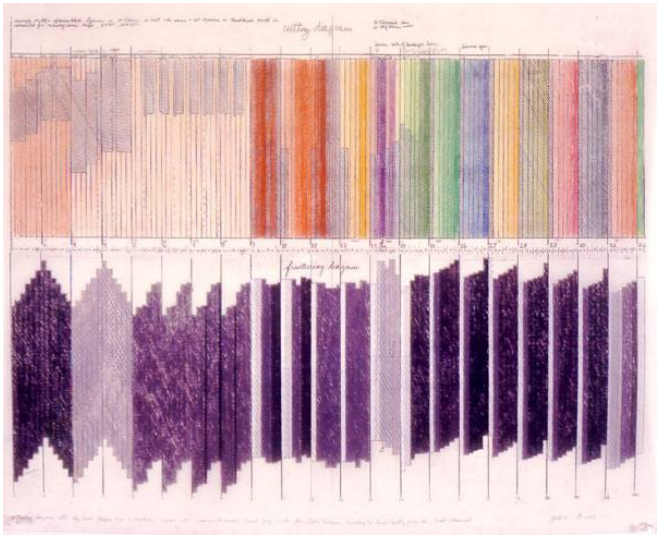
Architecture over first half of music.



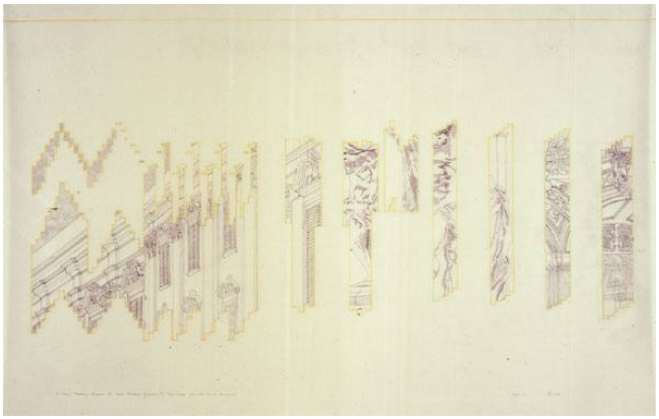
Architecture over second half of music.



Architecture, music, Alpine images, and fracturing and cutting pattern



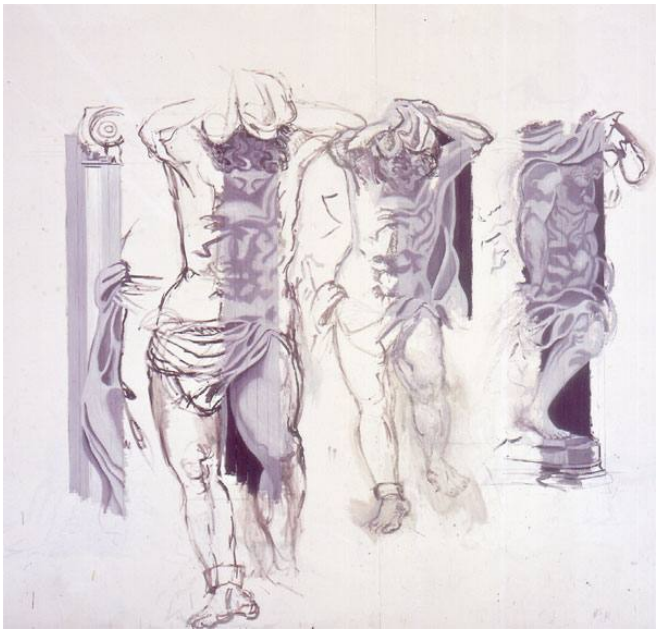
Fracturing and cutting pattern with glazing information.



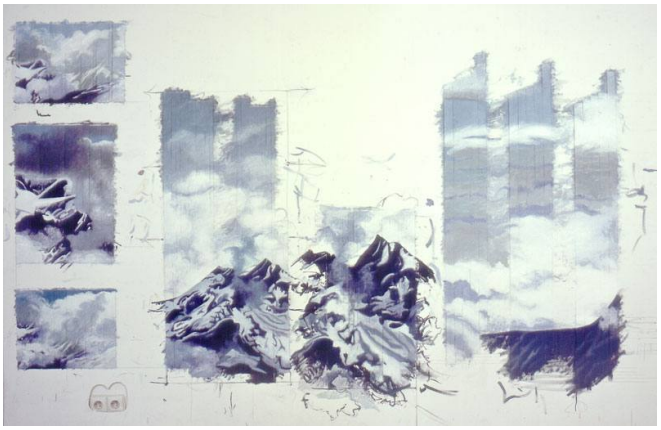
Schema showing the architecture which is in final painting.



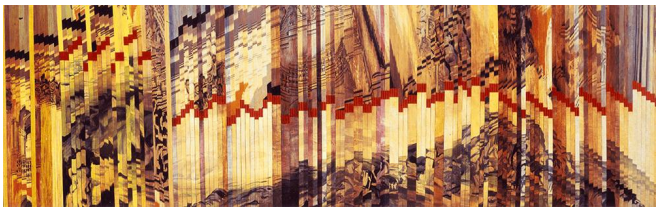
Actual painted strips on wall before restructuring into final work



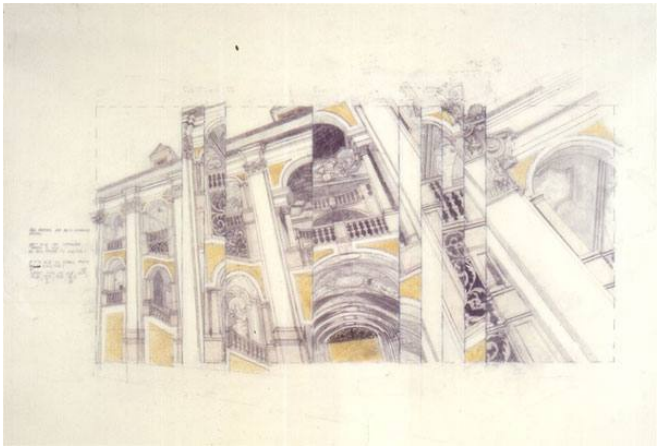
Actual painted strips on wall before restructuring into final work



Actual painted strips on wall before restructuring into final work



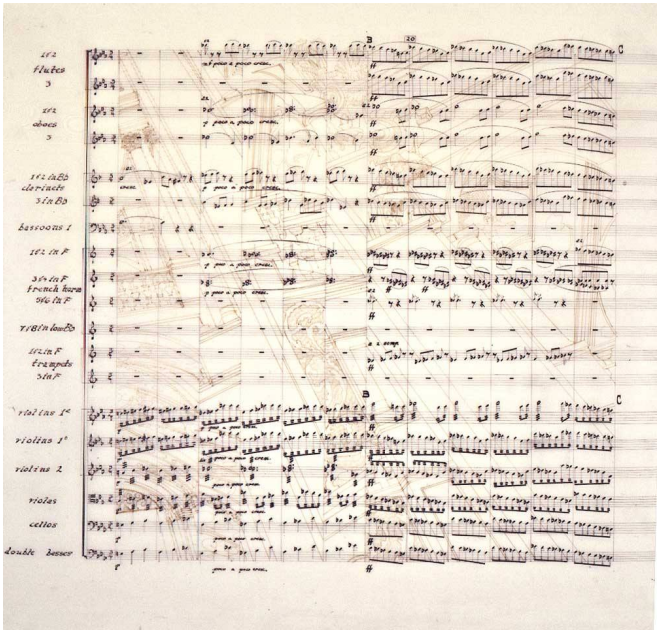
Bruckner Eighth — First painting, second movement (Scherzo) (c)1985, 48″×180″, oil on fibreglass strips on vinyl



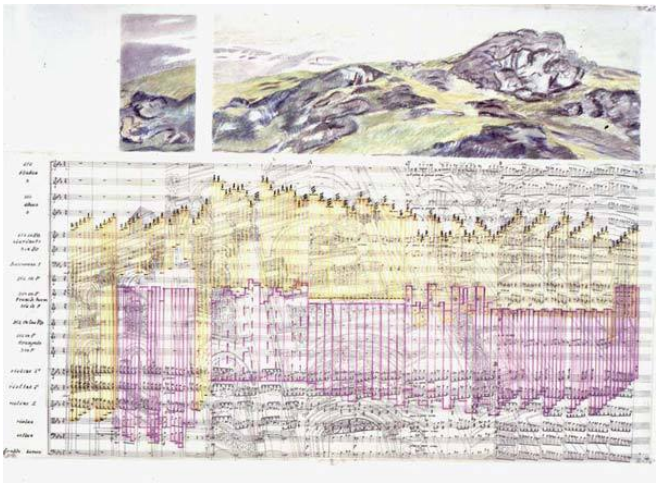
Original architectural drawing of St. Florian's Monastery



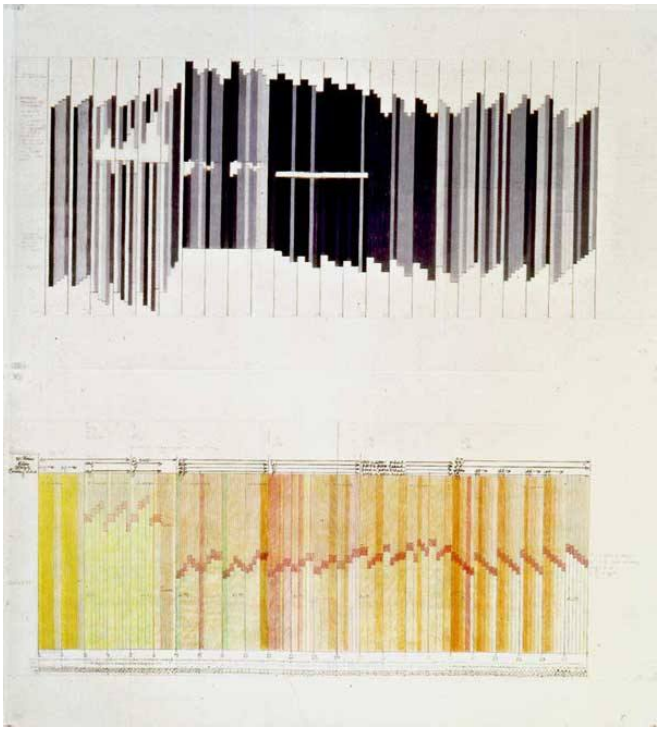
Architecture over first half of music.



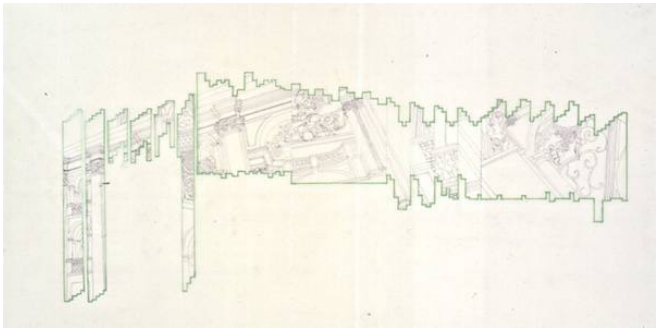
Architecture over second half of music.



Architecture, music, Alpine images, and fracturing and cutting pattern



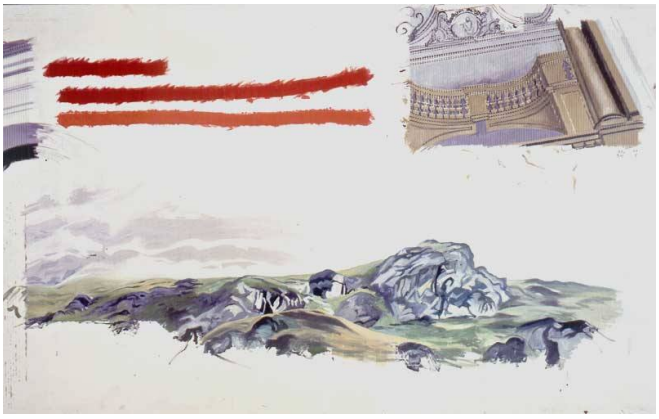
Fracturing and cutting pattern with glazing information.



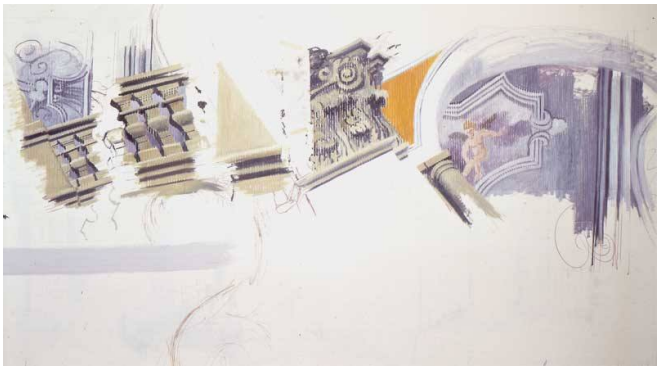
Schema showing the architecture which is in final painting.



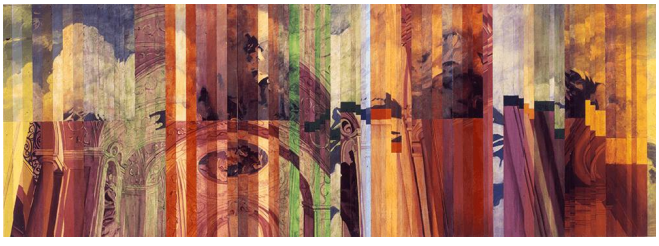
Actual painted strips on wall before restructuring into final work



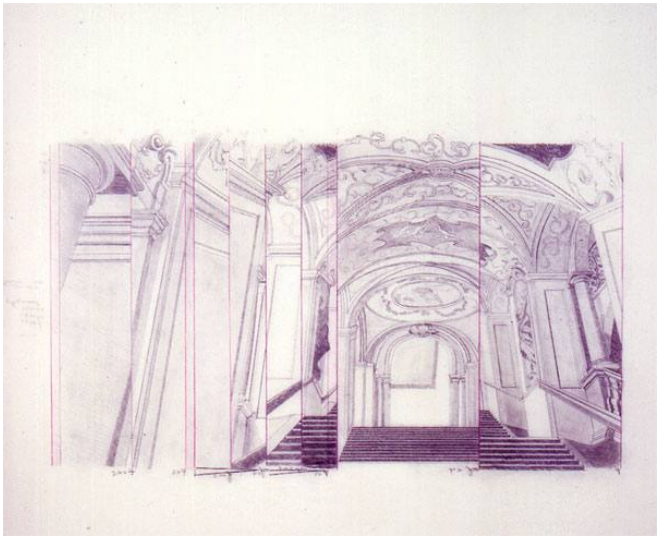
Actual painted strips on wall before restructuring into final work



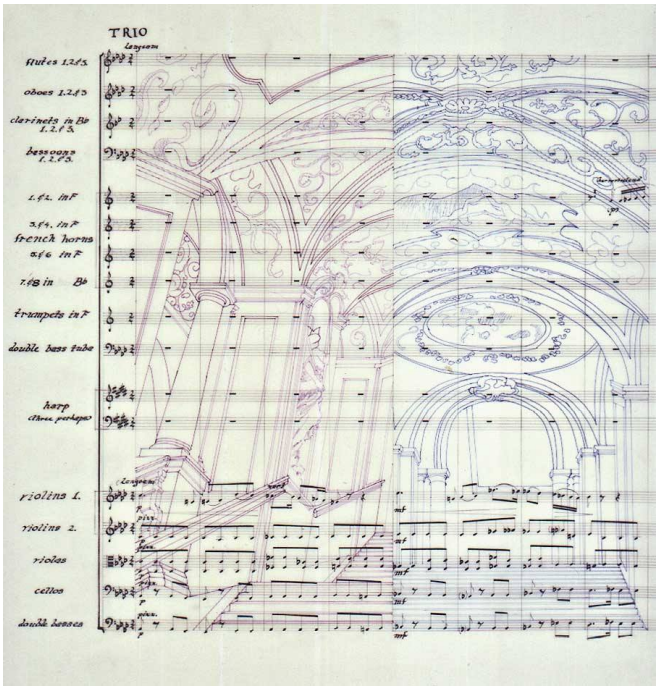
Actual painted strips on wall before restructuring into final work



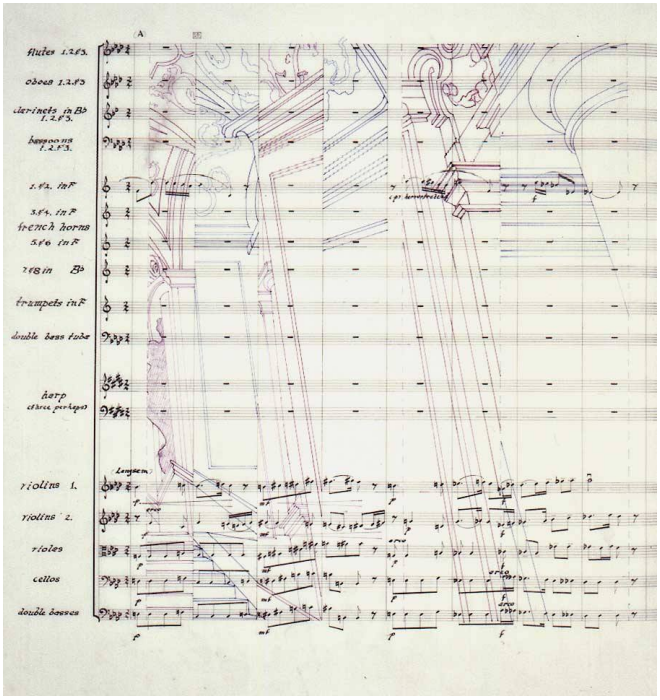
Bruckner Eighth — Second painting, second movement (trio theme)
(c)1986, 47″×129.25″, measures 1–16



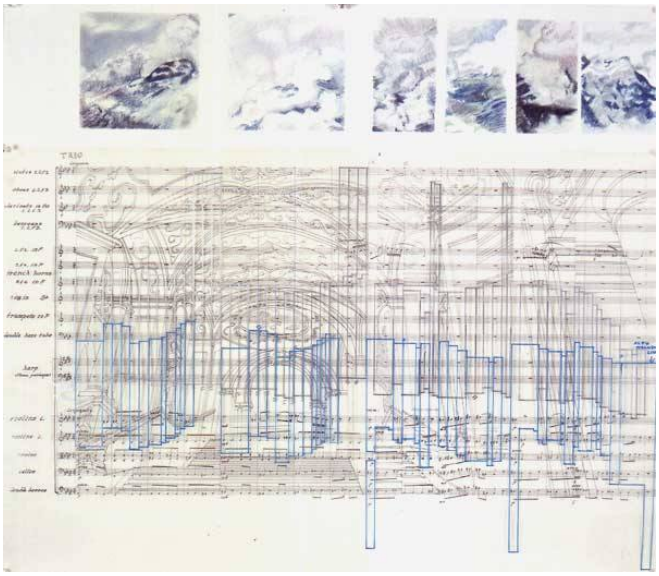
Original architectural drawing of St. Florian's Monastery



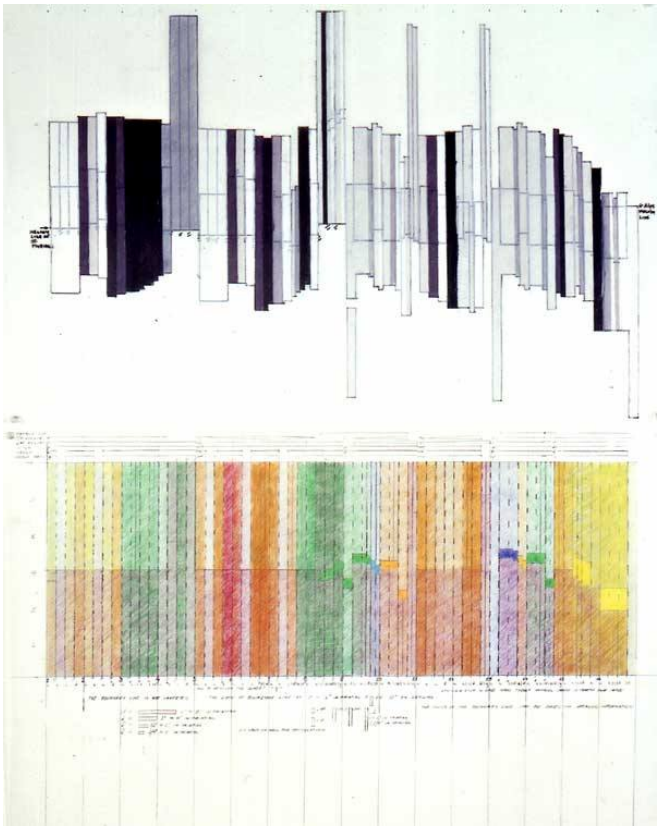
Architecture over first half of music.



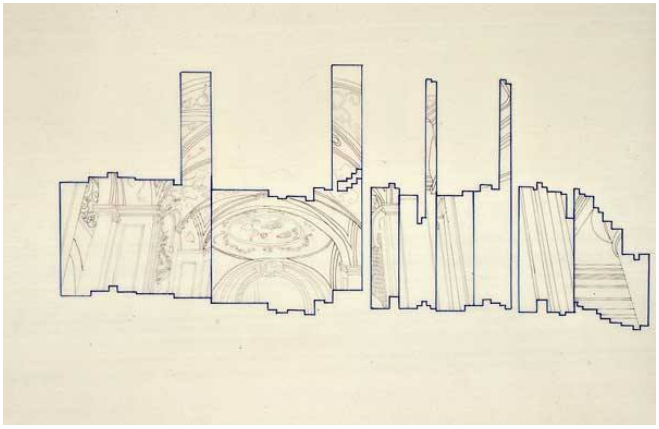
Architecture over second half of music.



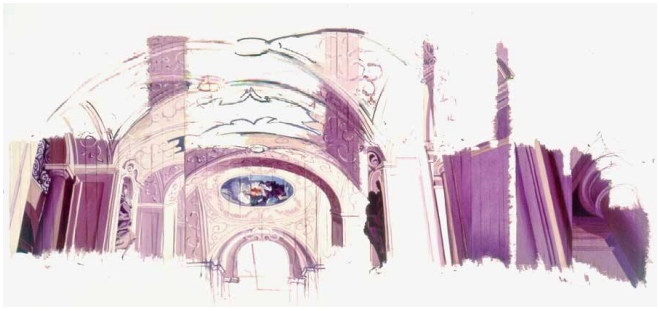
Architecture, music, Alpine images, and fracturing and cutting pattern



Fracturing and cutting pattern with glazing information.



Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



Actual painted strips on wall before restructuring into final work



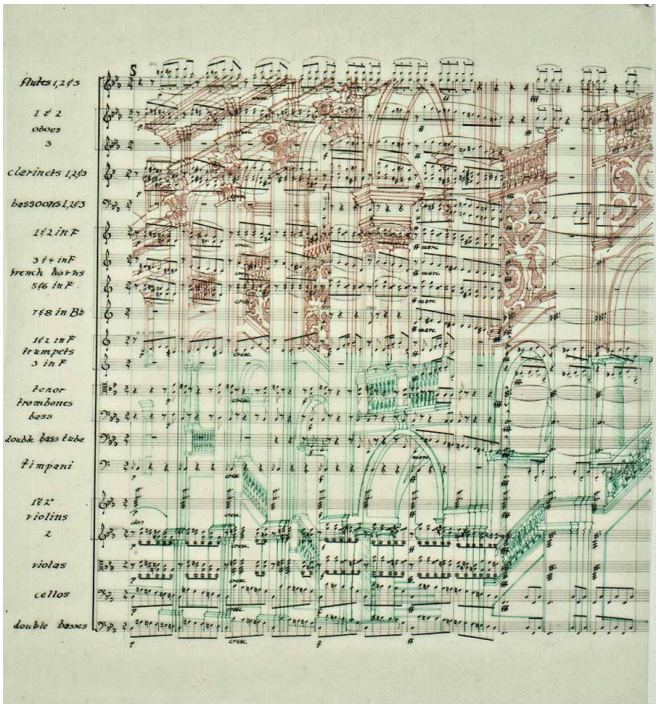
Actual painted strips on wall before restructuring into final work



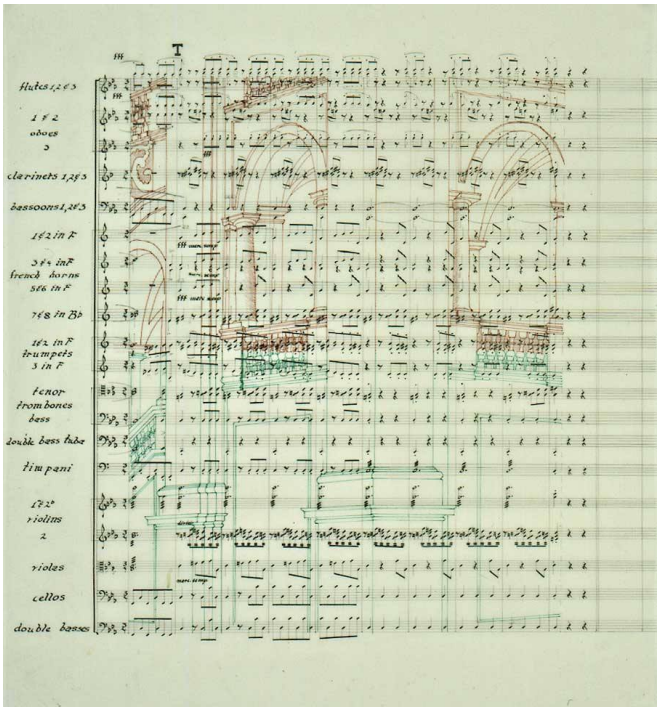
Bruckner Eighth — Third painting, second movement (scherzo end)
(c)1987, 47″×124″, measures 174–195



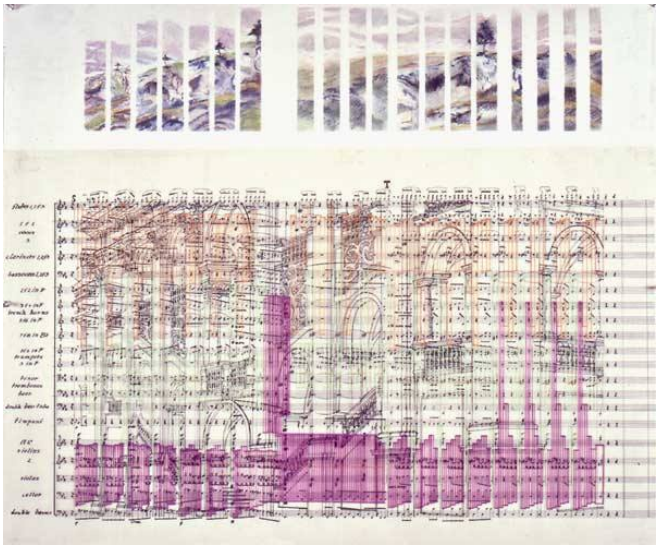
Original architectural drawing of St. Florian's Monastery



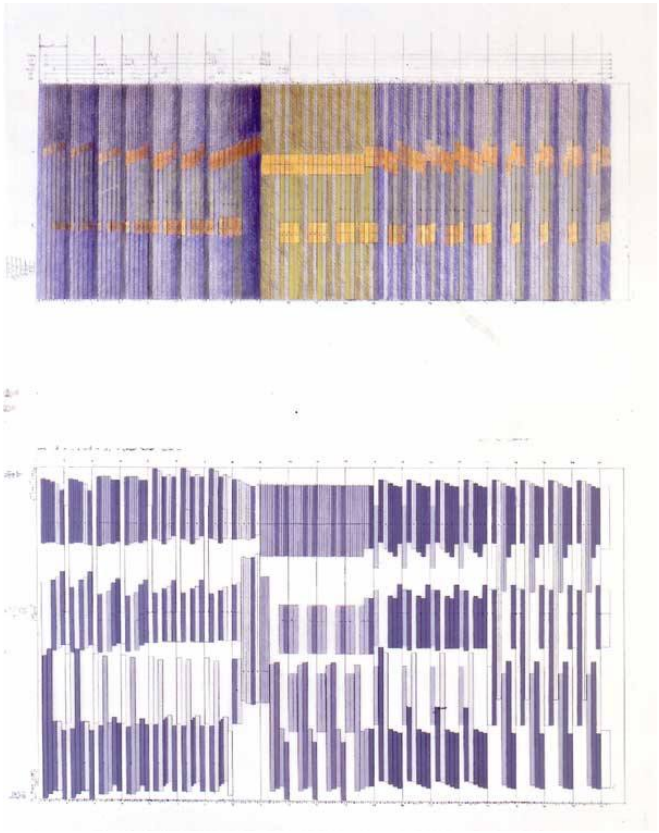
Architecture over first half of music.



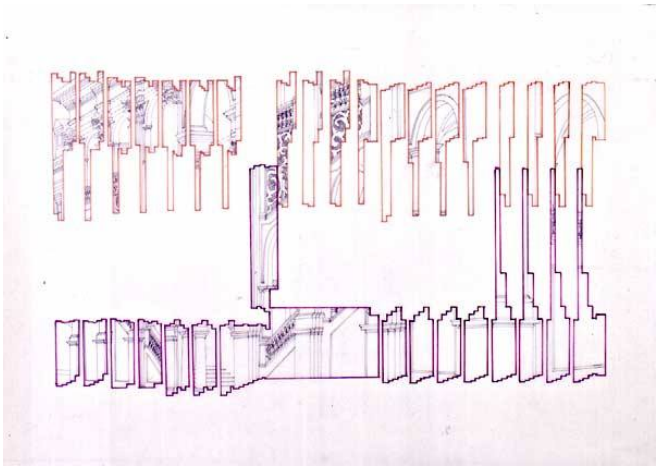
Architecture over second half of music.



Architecture, music, Alpine images, and fracturing and cutting pattern



Fracturing and cutting pattern with glazing information.



Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



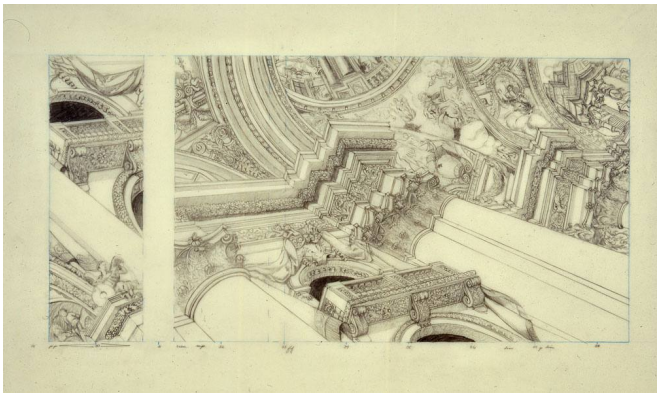
Actual painted strips on wall before restructuring into final work



Actual painted strips on wall before restructuring into final work

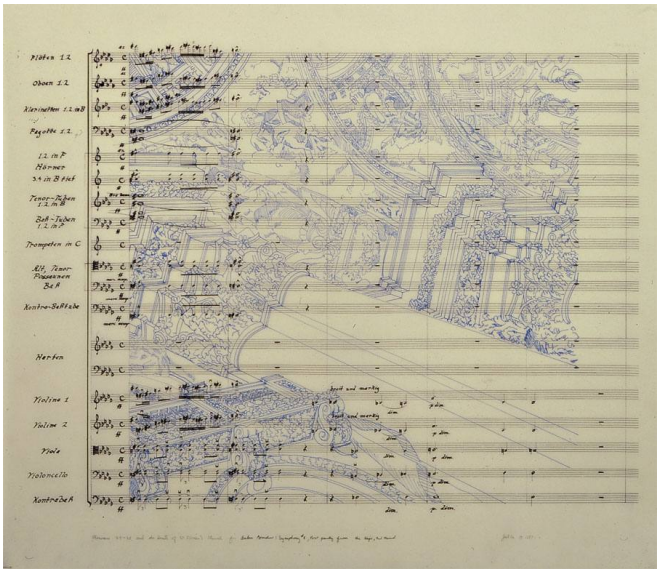


Bruckner Eighth — First painting, third movement (Adagio, 1st half of first theme) (c)1987, 47″×154″

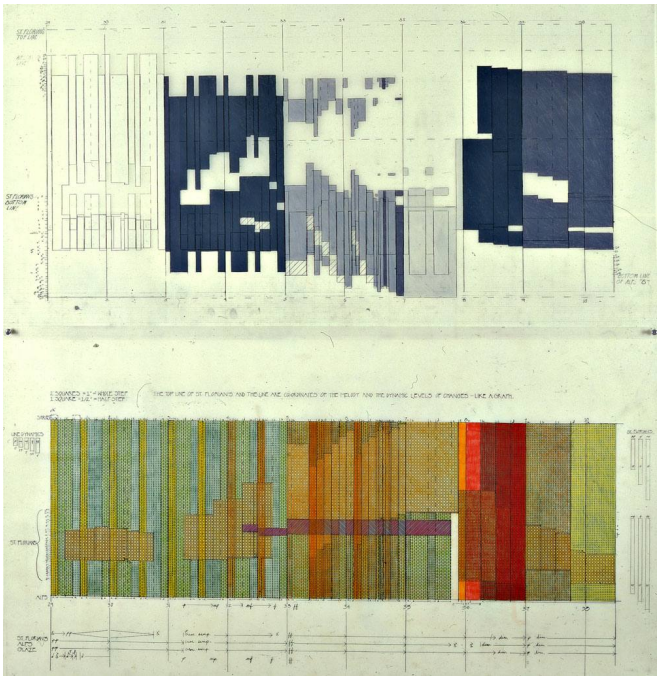




Original architectural drawing of St. Florian's Monastery

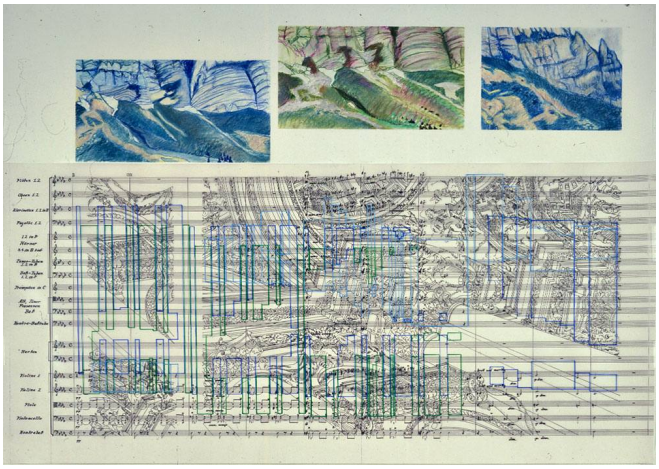


Architecture over second half of music.

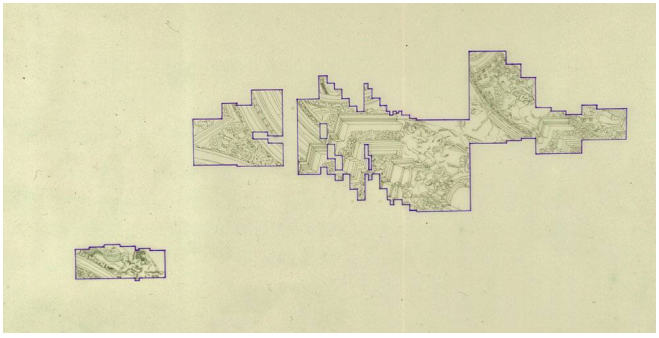


Fracturing and cutting pattern with glazing information.

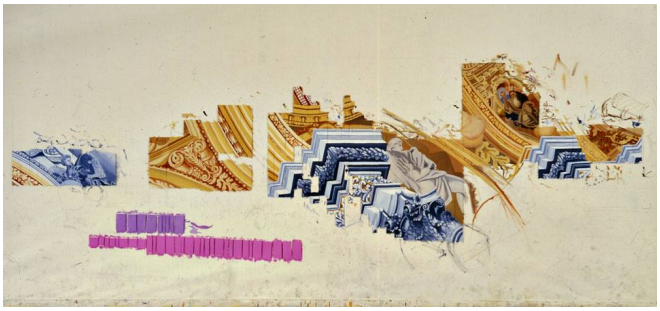
Architecture over first half of music.



Architecture, music, Alpine images, and fracturing and cutting pattern



Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



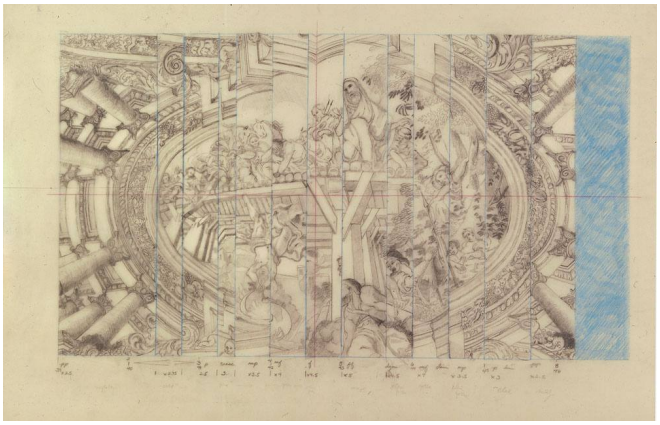
Actual painted strips on wall before restructuring into final work



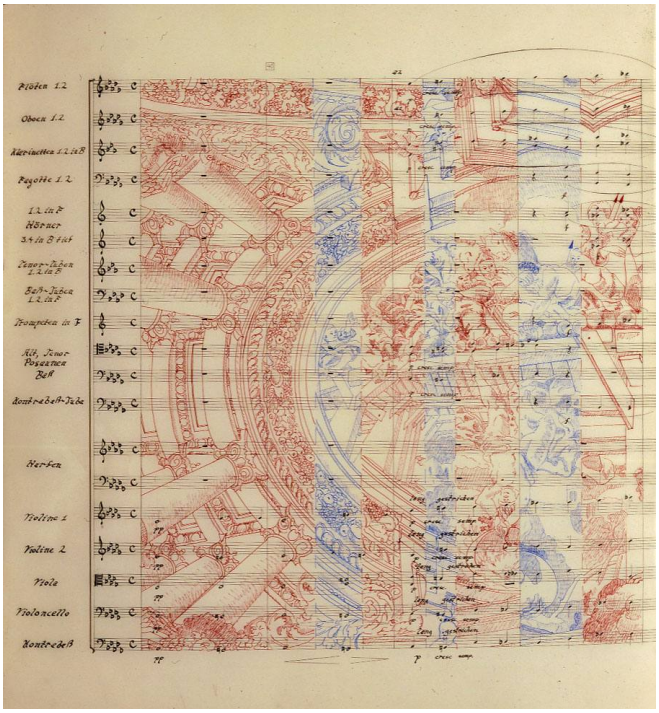
Actual painted strips on wall before restructuring into final work



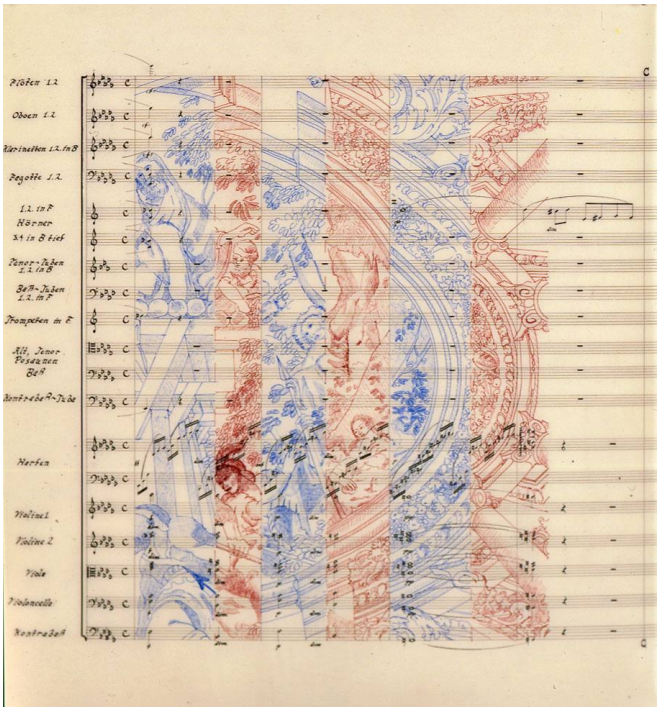
Bruckner Eighth — Second painting, third movement (Adagio, 2nd half of first theme) (c)1988, 47″×128″



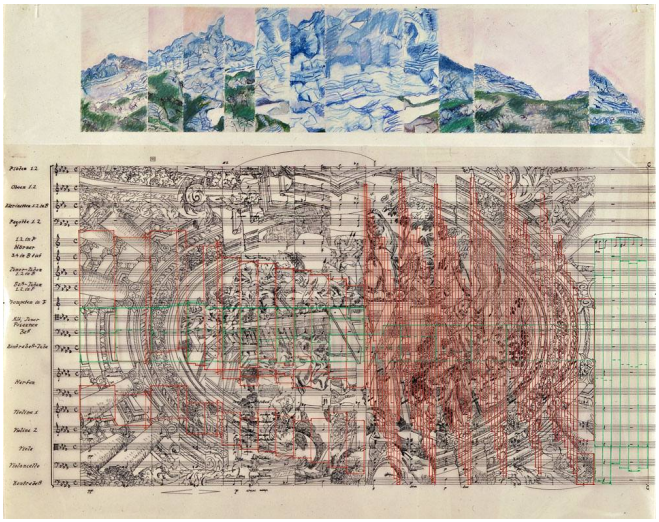
Original architectural drawing of St. Florian's Monastery



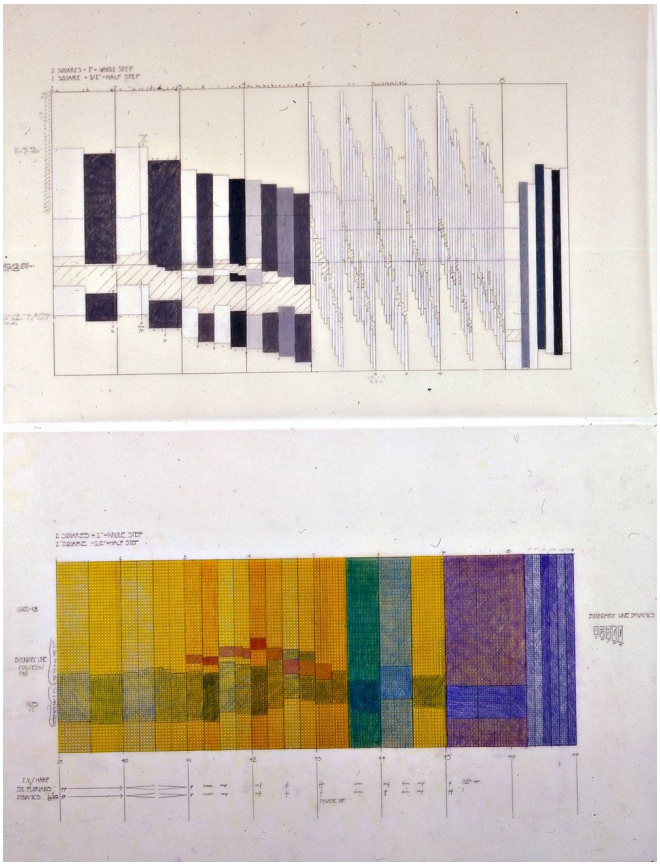
Architecture over first half of music.



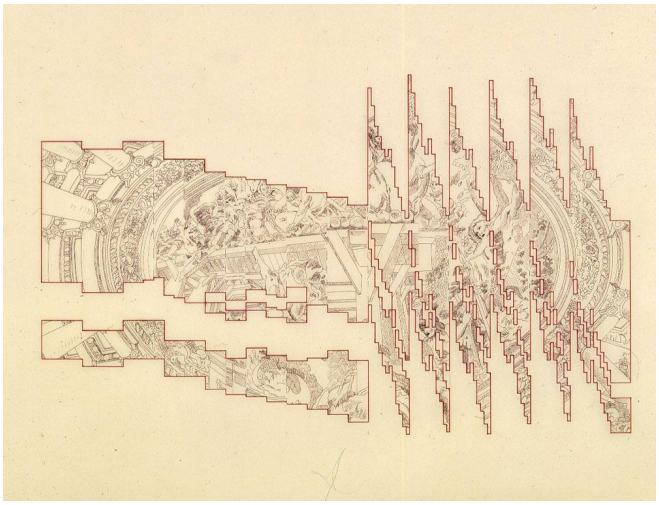
Architecture over second half of music.



Architecture, music, Alpine images, and fracturing and cutting pattern



Fracturing and cutting pattern with glazing information.



Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



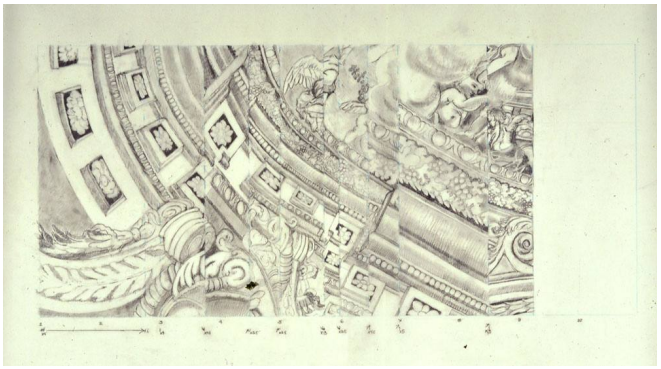
Actual painted strips on wall before restructuring into final work



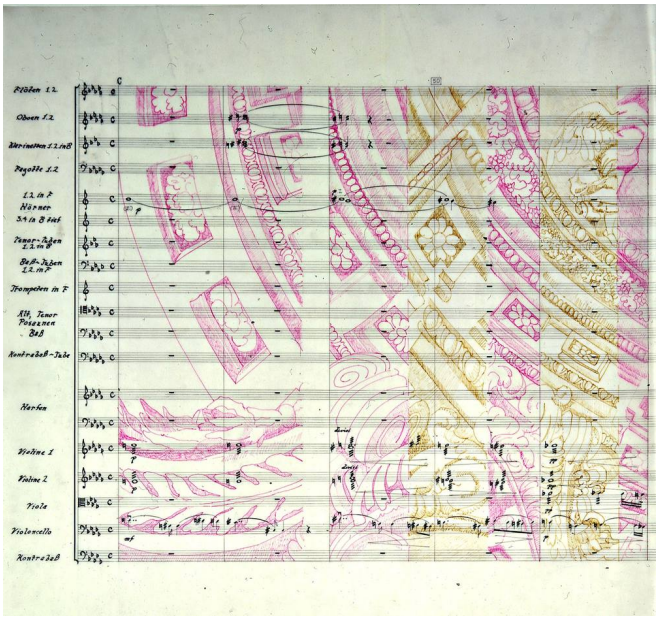
Actual painted strips on wall before restructuring into final work



Bruckner Eighth — Third painting, third movement (Adagio, second theme)
(c)1989, 47″×164″



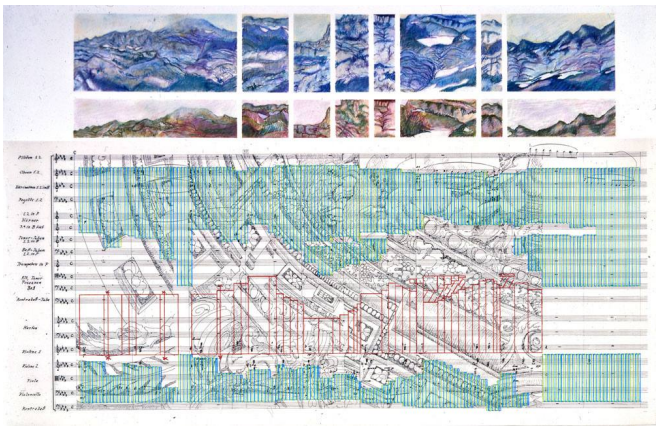
Original architectural drawing of St. Florian's Monastery



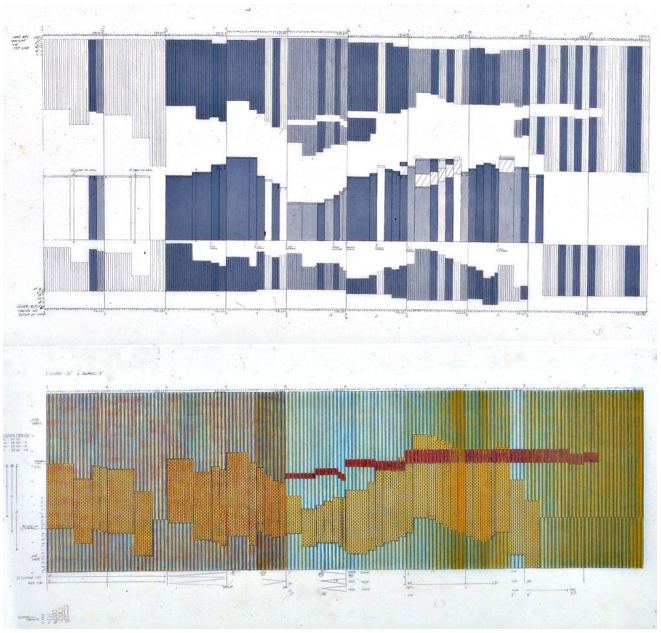
Architecture over first half of music.



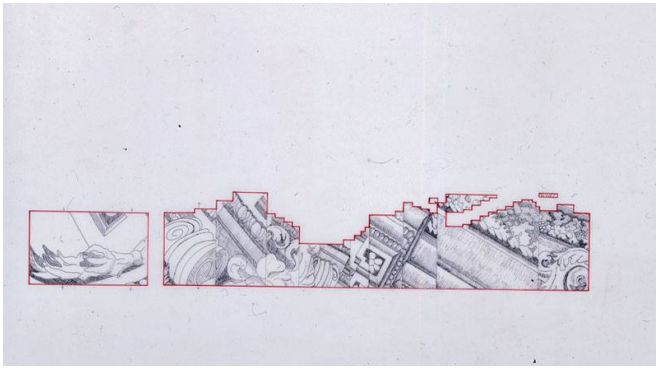
Architecture over second half of music.



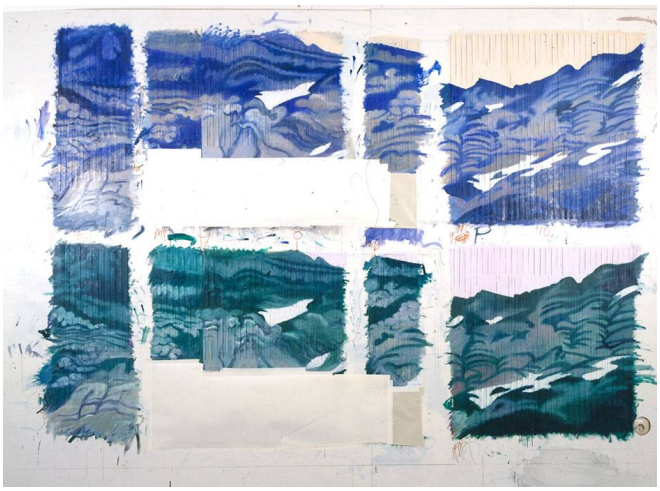
Architecture, music, Alpine images, and fracturing and cutting pattern



Fracturing and cutting pattern with glazing information.



Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



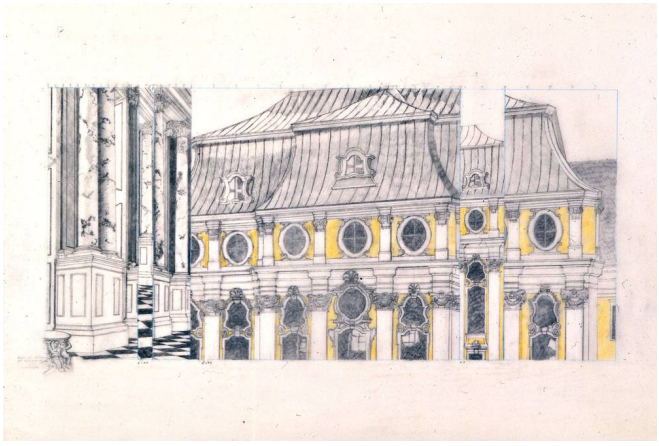
Actual painted strips on wall before restructuring into final work



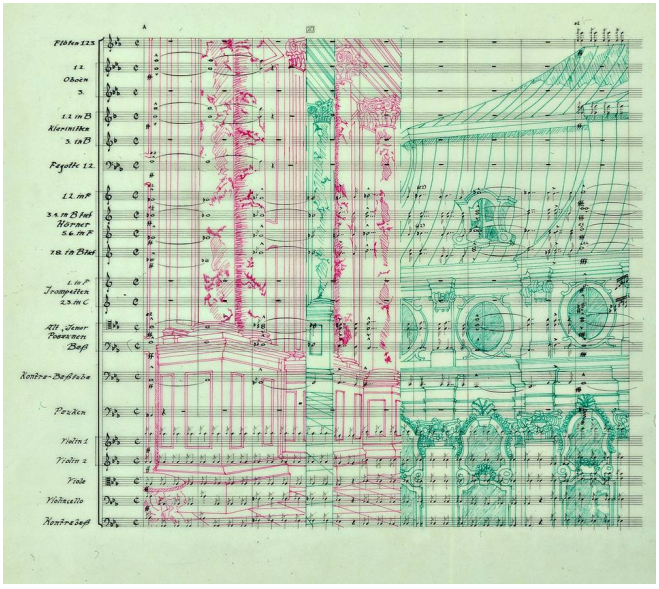
Actual painted strips on wall before restructuring into final work



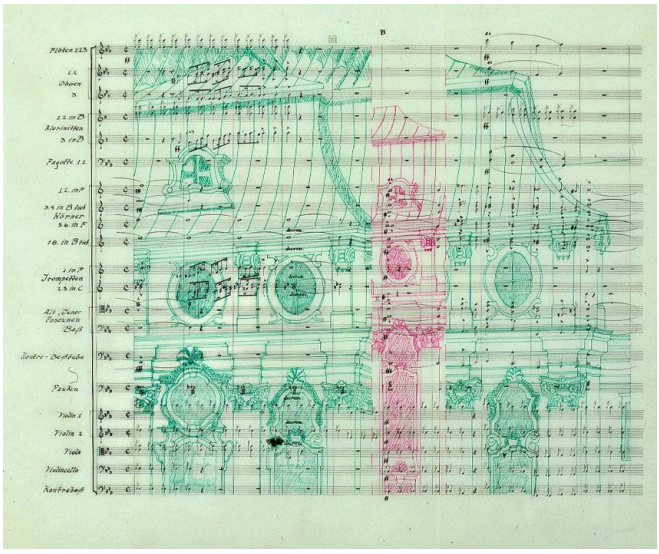
Bruckner Eighth — First painting, fourth movement (Finale) (c)1989, 47″×155″



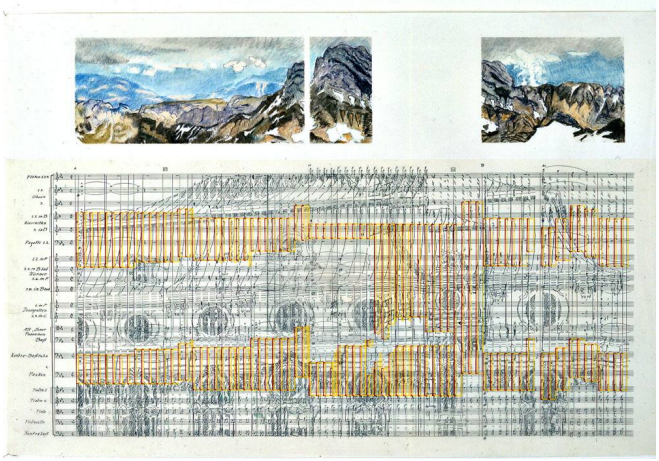
Original architectural drawing of St. Florian's Monastery



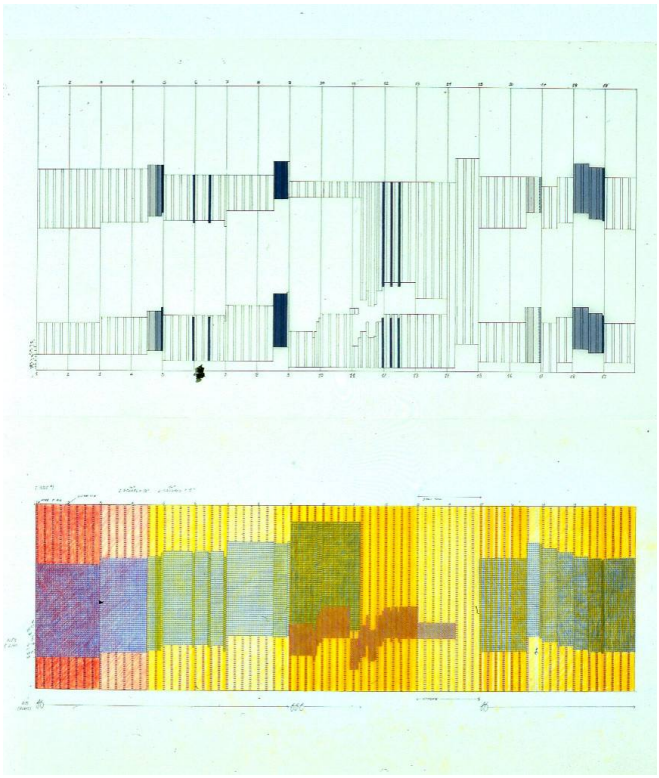
Architecture over first half of music.



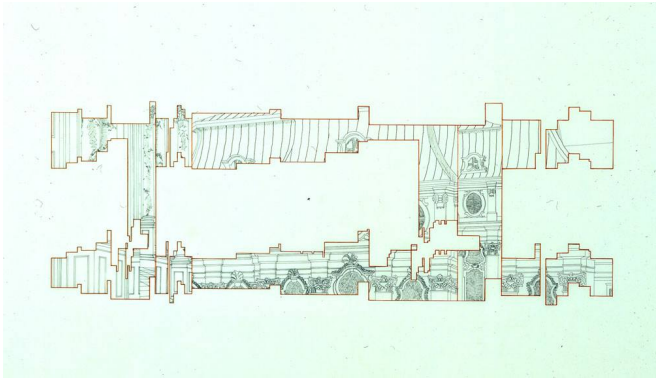
Architecture over second half of music.



Architecture, music, Alpine images, and fracturing and cutting pattern



Fracturing and cutting pattern with glazing information.



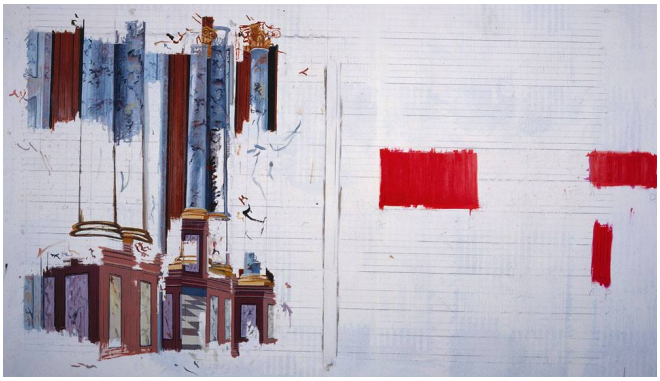
Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



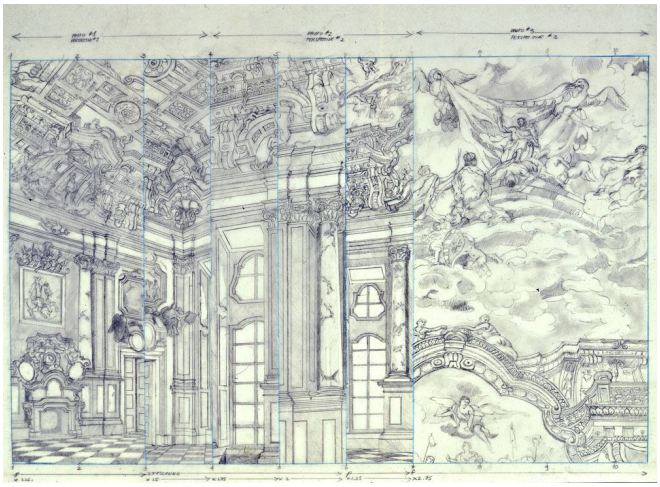
Actual painted strips on wall before restructuring into final work



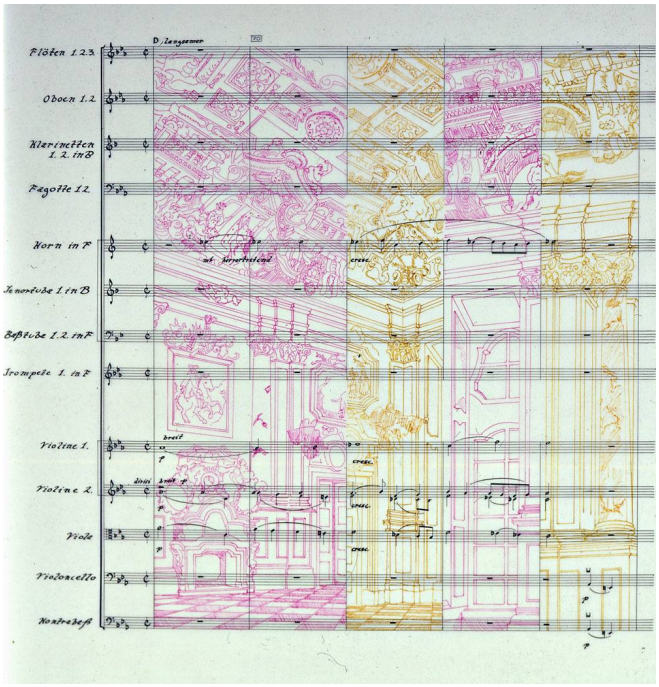
Actual painted strips on wall before restructuring into final work



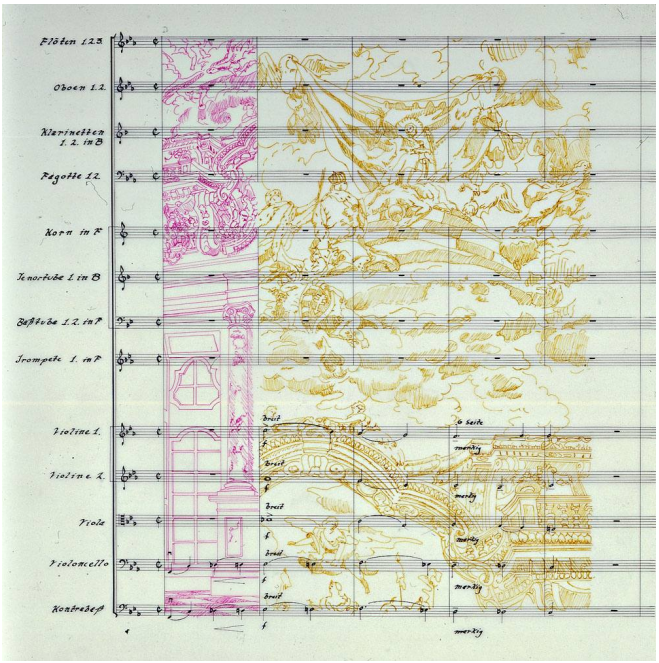
Bruckner Eighth — Second painting, fourth movement (Finale, theme 2)
(c)1990, 47″×126″



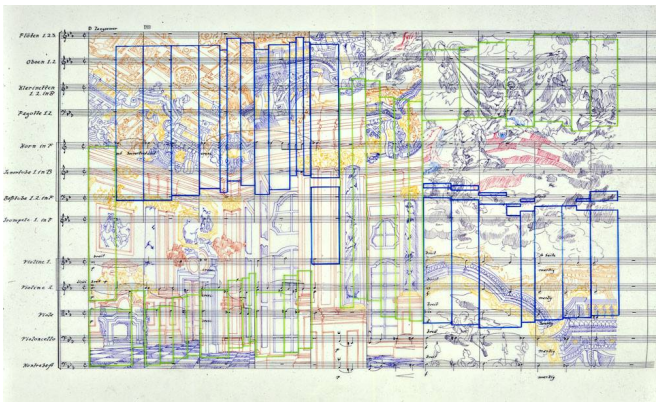
Original architectural drawing of St. Florian's Monastery



Architecture over first half of music.



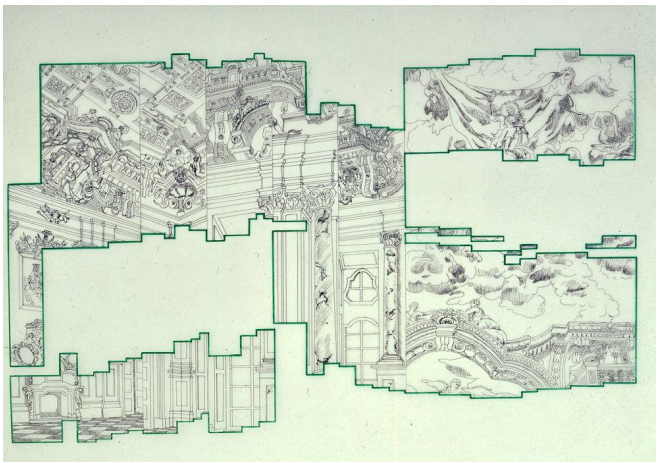
Architecture over second half of music.



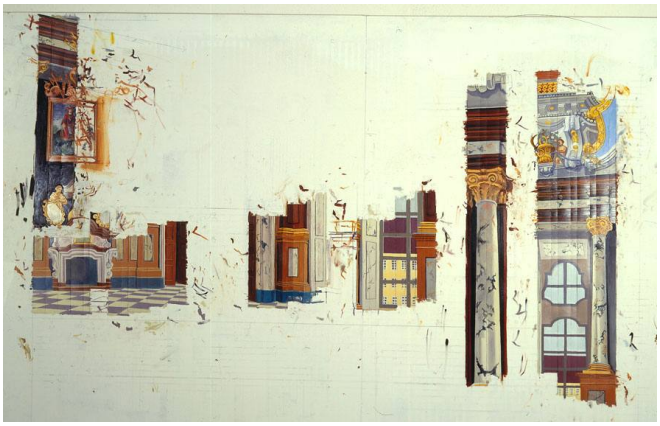
Architecture, music, Alpine images, and fracturing and cutting pattern



Fracturing and cutting pattern with glazing information.



Schema showing the architecture which is in final painting.



Actual painted strips on wall before restructuring into final work



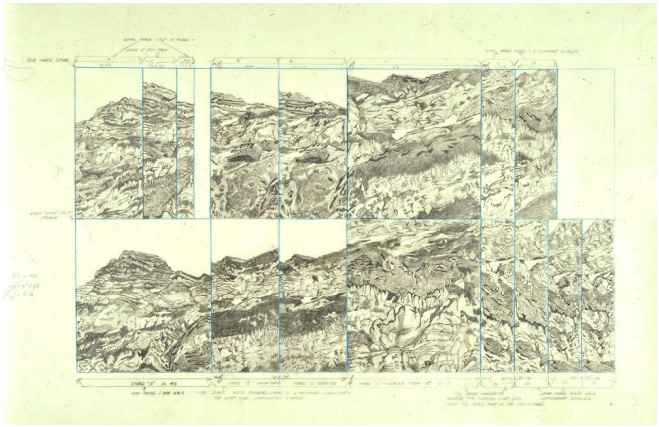
Actual painted strips on wall before restructuring into final work



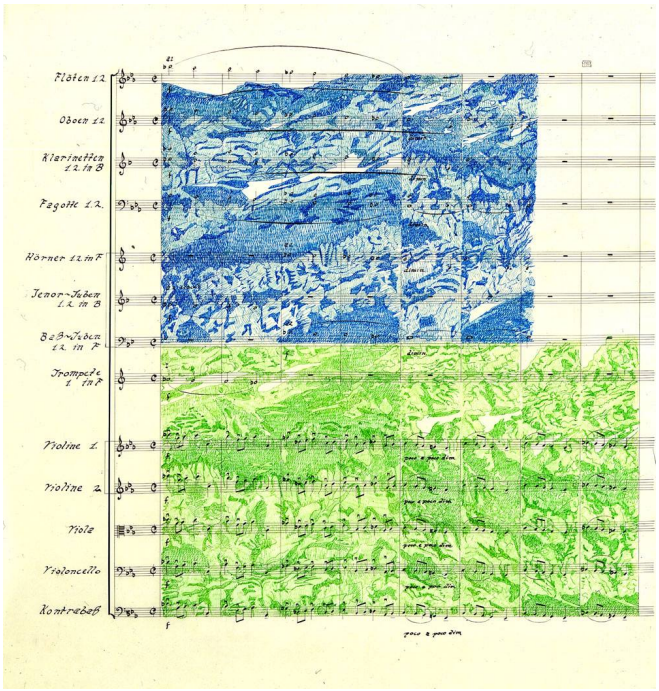
Actual painted strips on wall before restructuring into final work



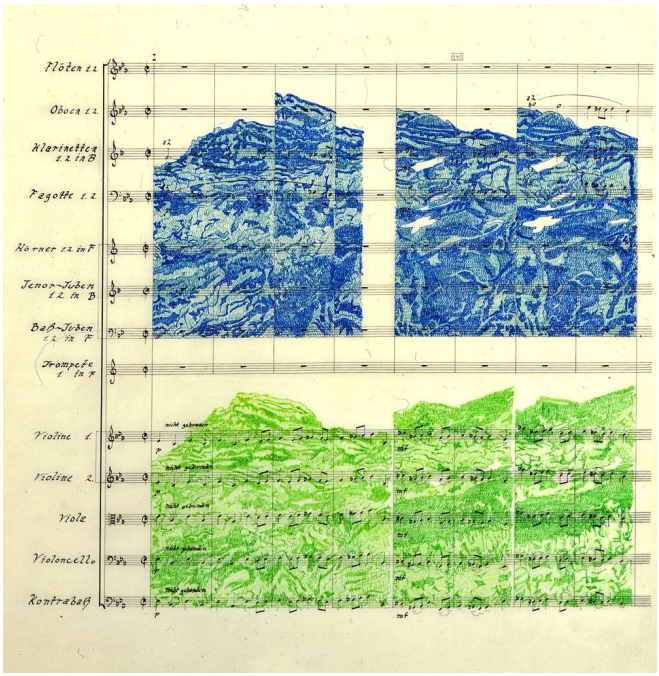
Bruckner Eighth — Third painting, fourth movement (Finale, third theme)
(c)1990, 47″×130″



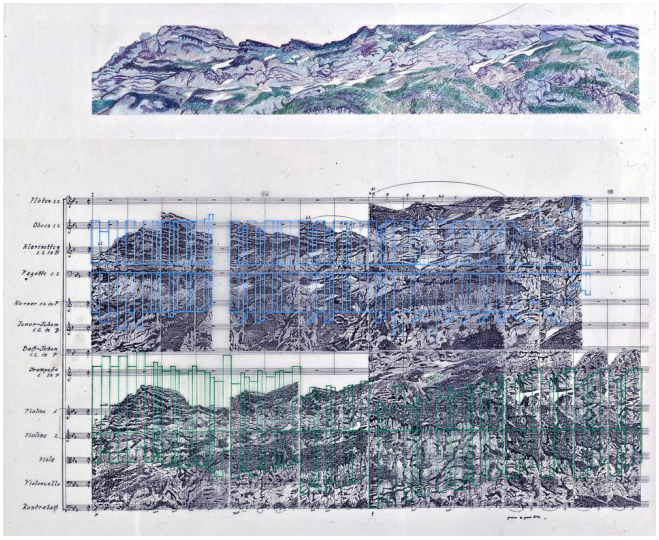
Original landscape drawings from the Alps



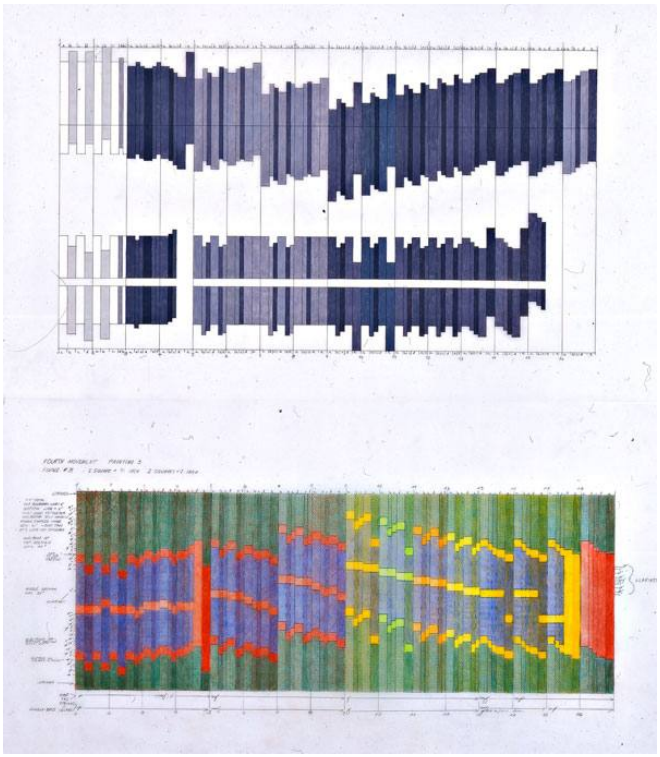
Alps over first half of music.



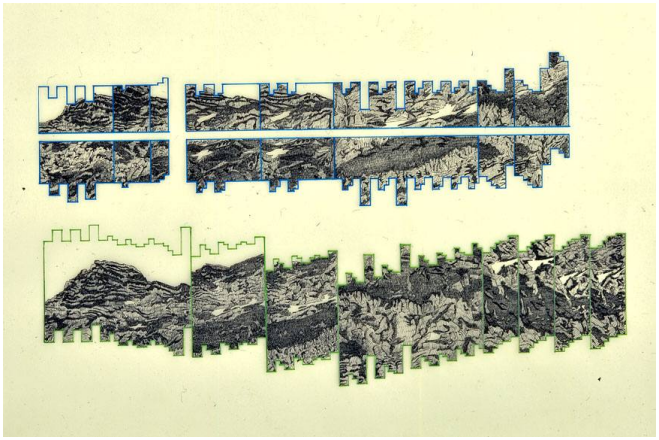
Alps over second half of music.



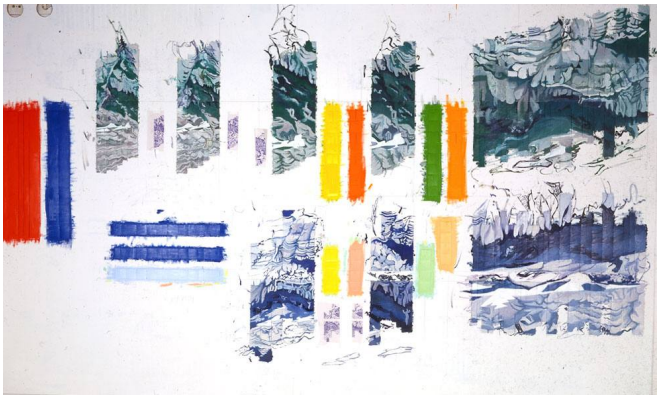
Music, Alpine images, and fracturing and cutting pattern



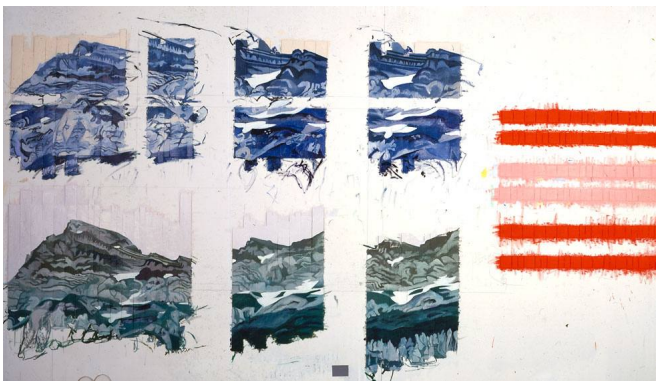
Fracturing and cutting pattern with glazing information.



Schema showing the landscape which is in final painting.



Actual painted strips on wall before restructuring into final work



Actual painted strips on wall before restructuring into final work