Cluster Typography

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Contents

Introduction

Different kinds

Special notations

Conclusion

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What is a *cluster*?

First idea: hands flat on keys of a piano.

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White keys? or black ones? or both?

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Using *micro-intervals*.

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First idea: hands flat on keys of a piano.
White keys? or black ones? or both?
Using *micro-intervals*.
A *cluster* is a chord comprising at least three adjacent notes of a scale.

Contents
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A cluster may be *tonal*

Example: Henryk Mikołaj Górecki's *3rd Symphony*.

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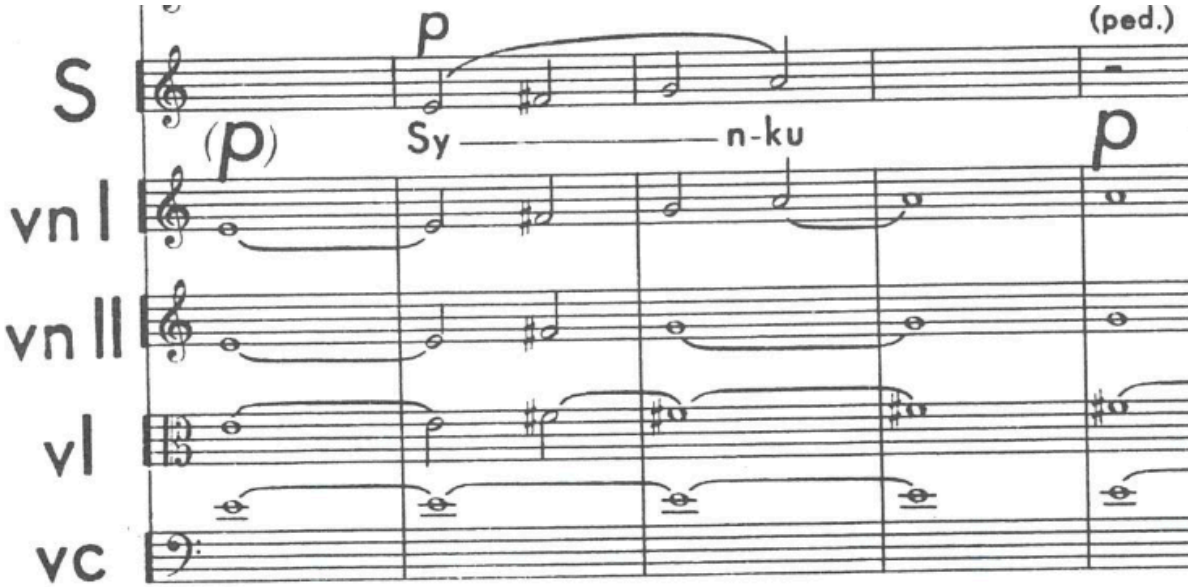

Whole-tone cluster

H. M. Górecki's *2nd Symphony*.

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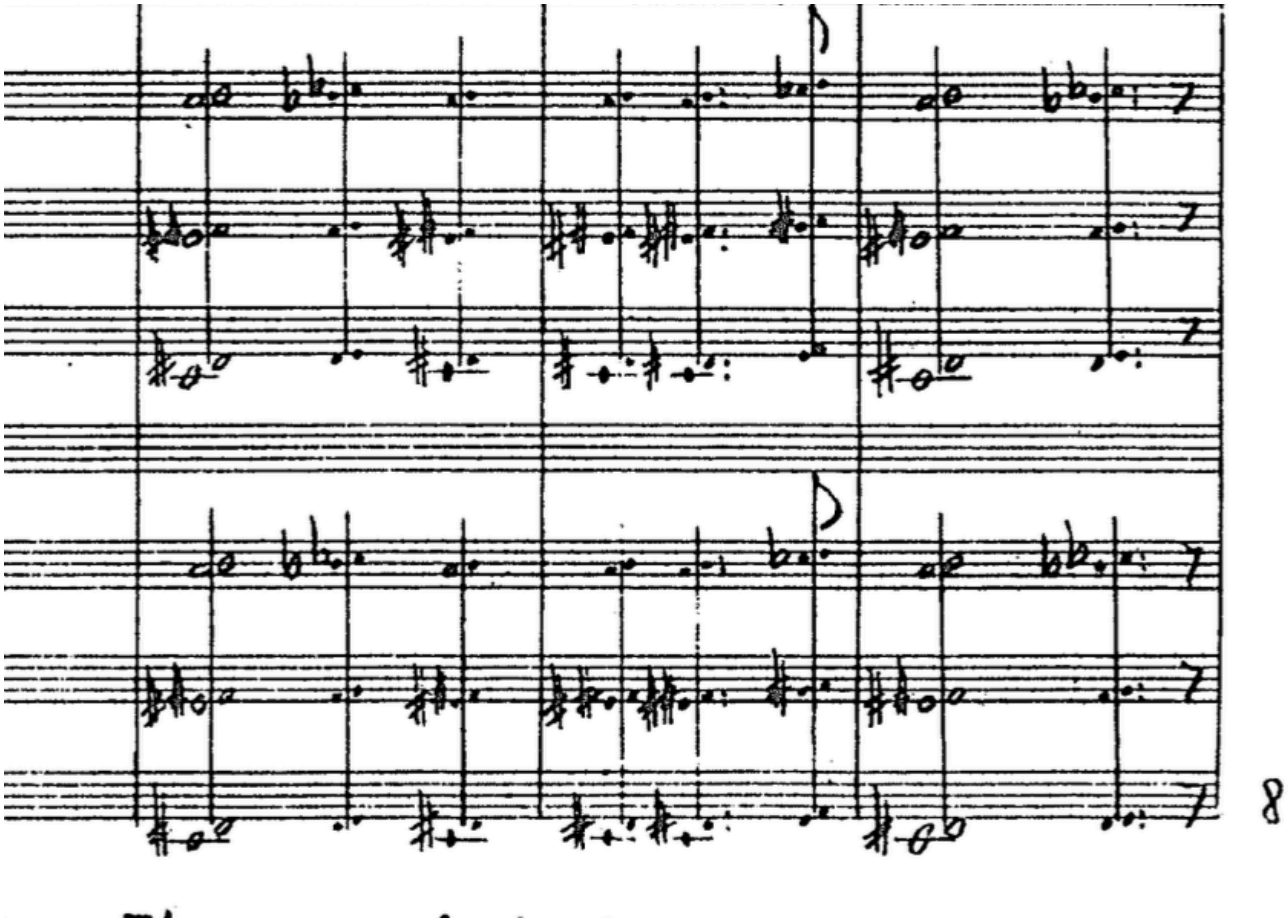

Chromatic cluster

Example: Dmitri Shostakovich's *14th Symphony*.

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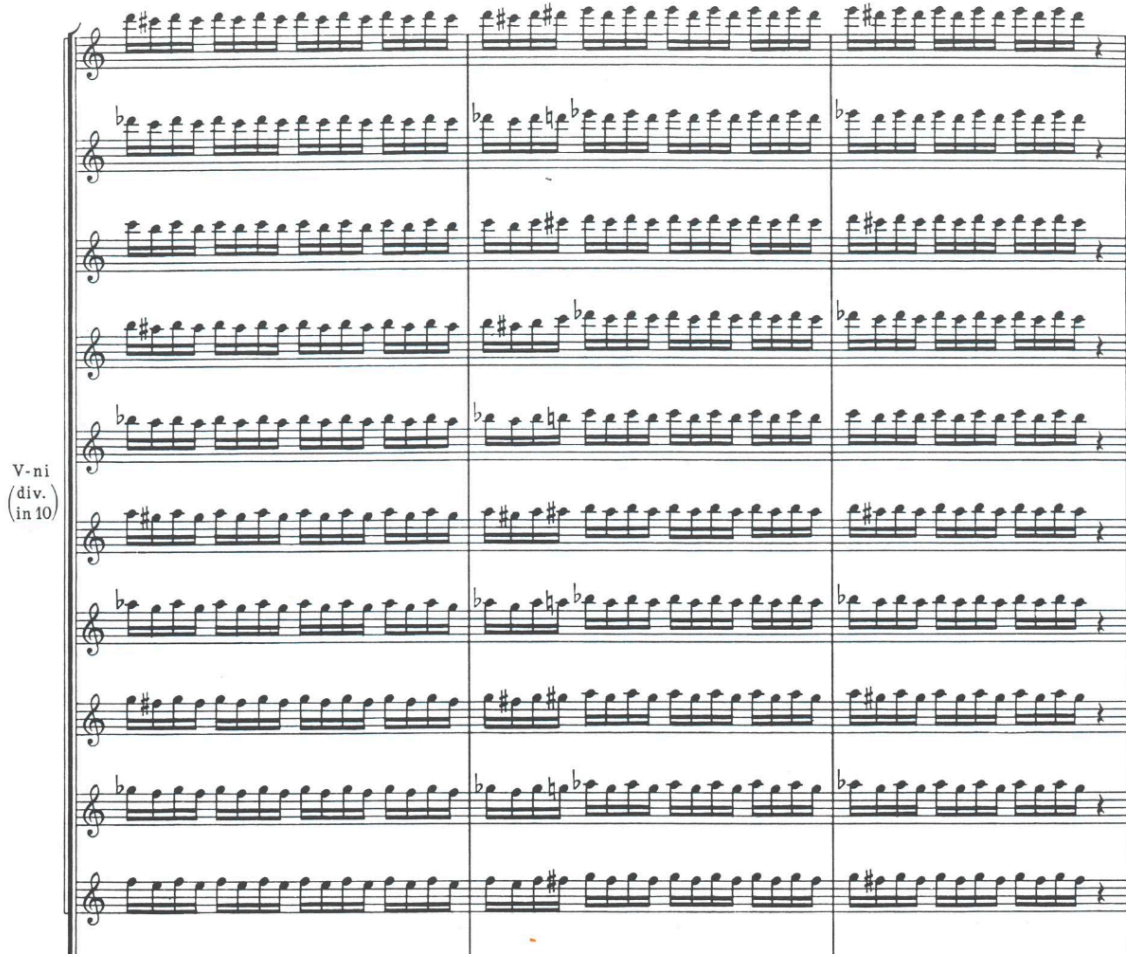

Micro-tonal cluster

Example by Alfred Schnittke: *1st Concerto grosso*'s end.

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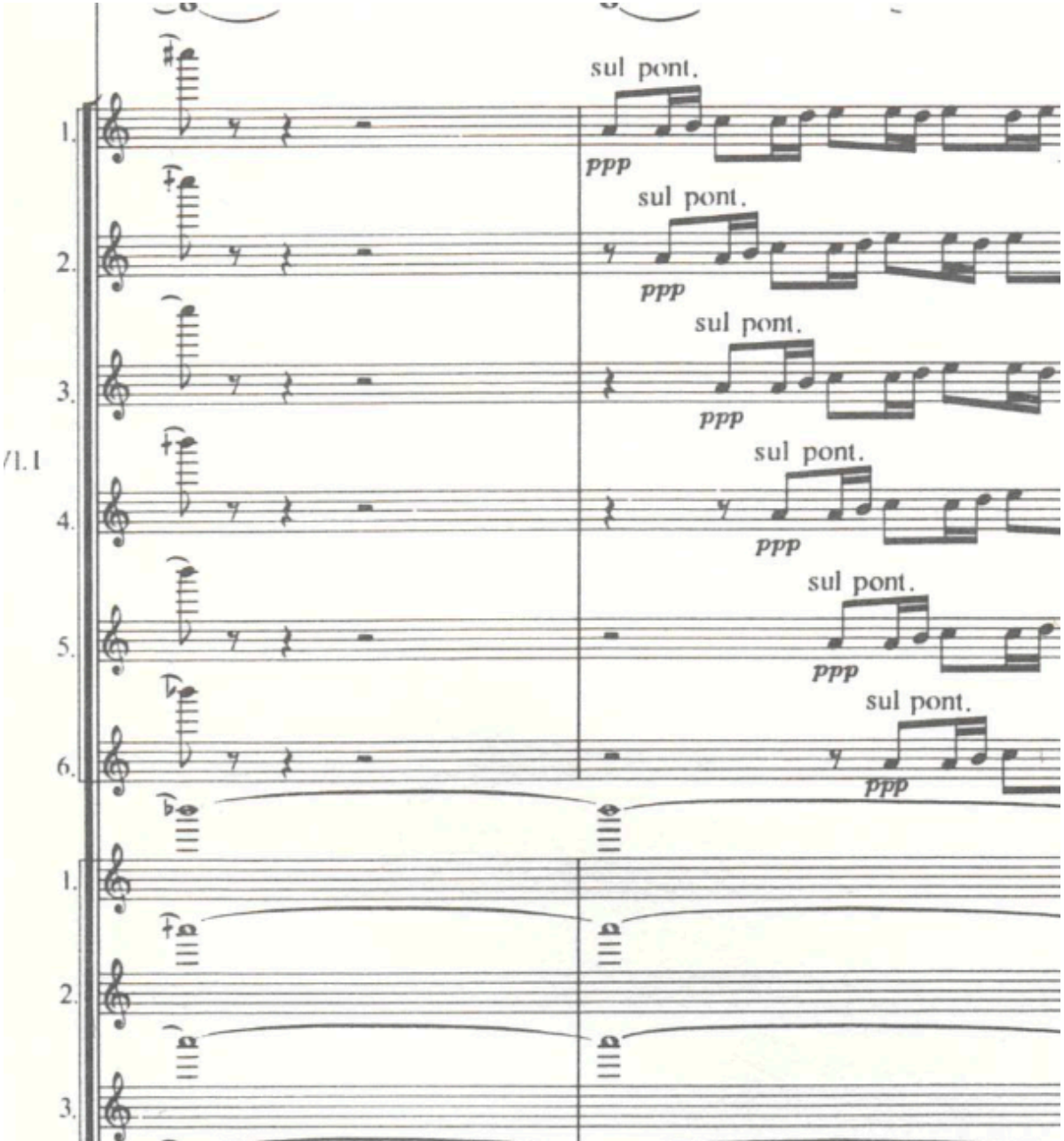

Quite standardised

Double stem—up and down—for chromatic clusters.

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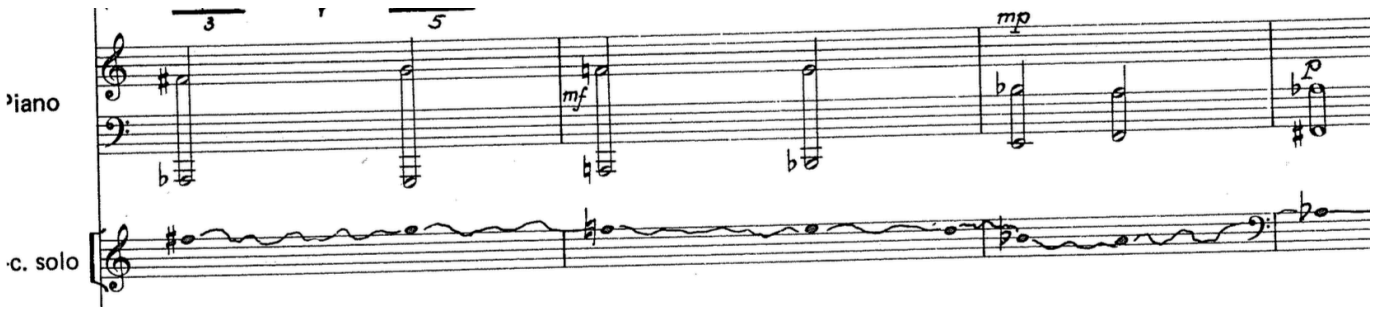

Using thick horizontal lines. . .

. . . but make precise the notes belonging to the cluster.

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Example 1: H. M. Górecki's *Old Polish Music*.

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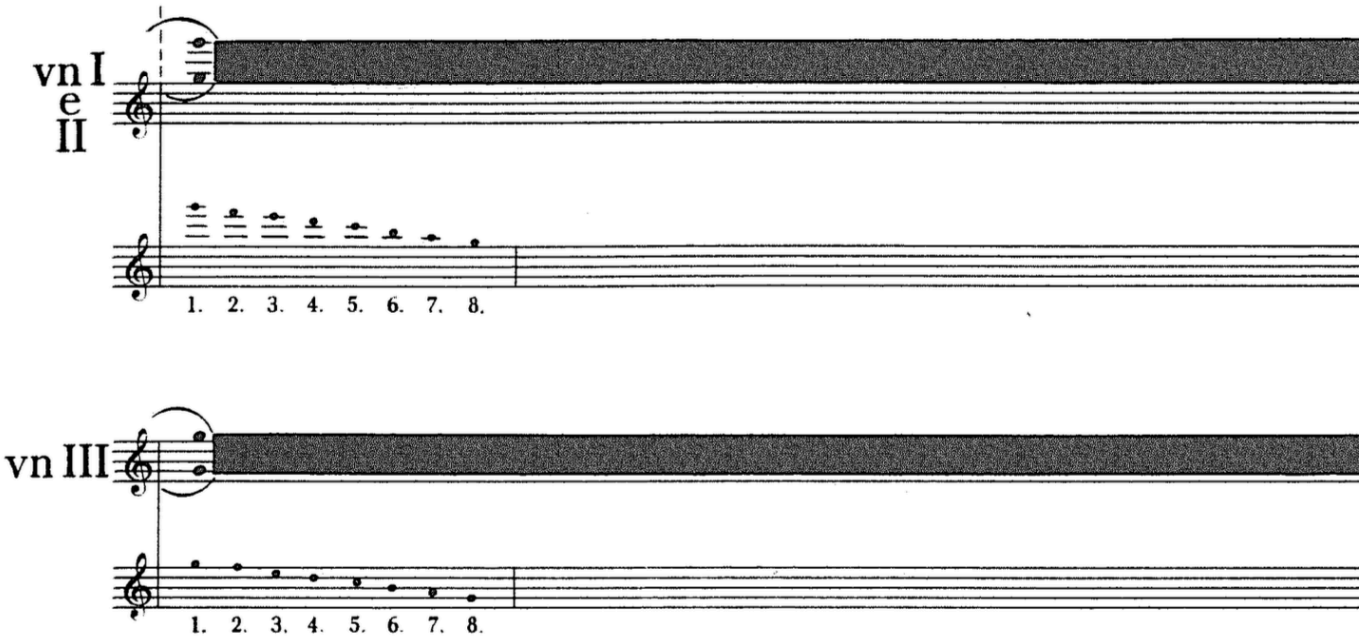

Using thick horizontal lines (con'd)

Example 2: Krzysztof Penderecki's *Threnody*.

Using thick horizontal lines (con'd)

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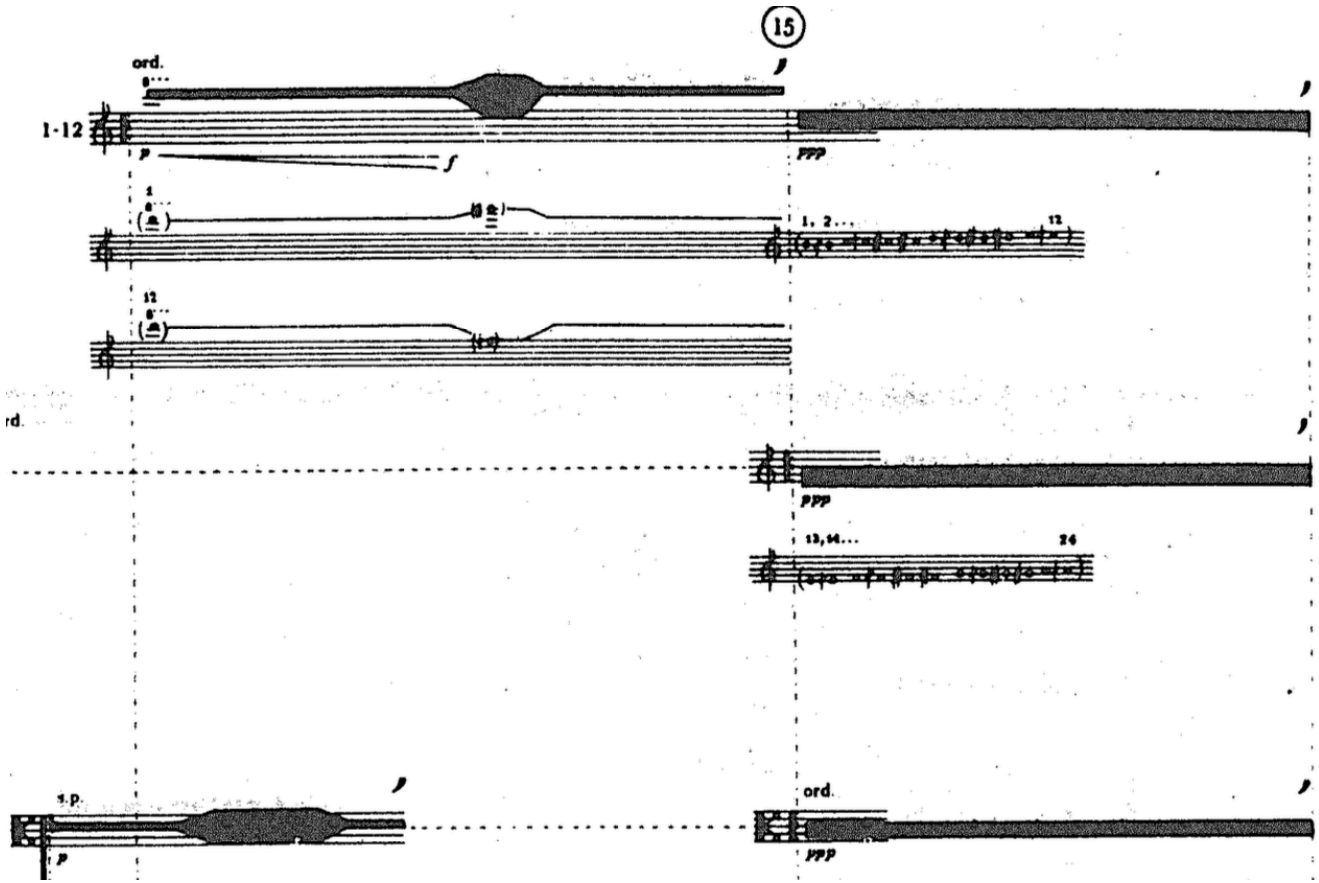

More expressive power

More changing, more random...

More expressive power

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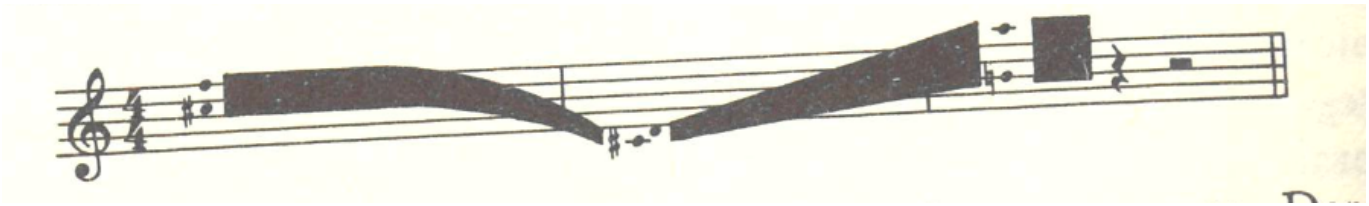

Even more

Sofia Gubaidulina's *De Profundis*, for *bayan* (chromatic accordion).

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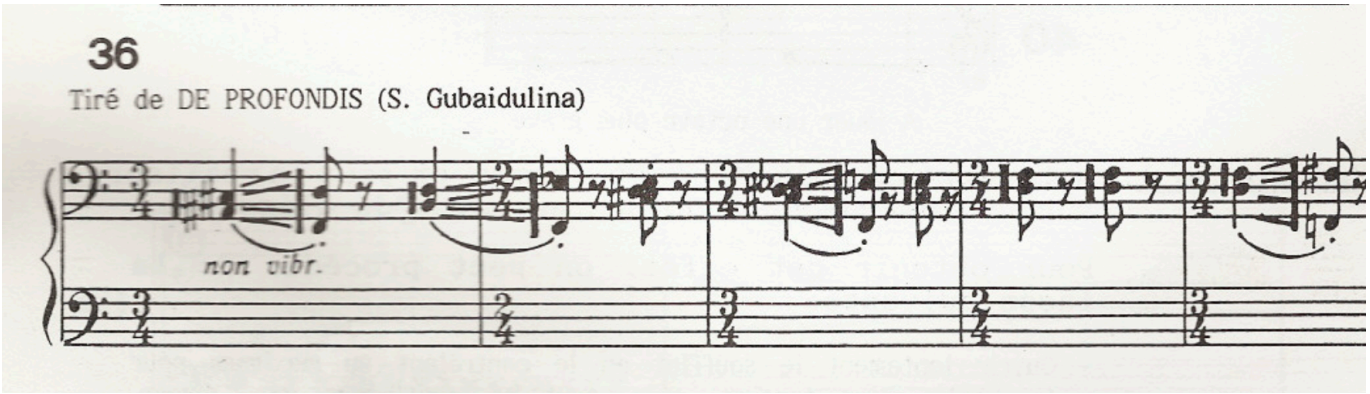

Contents
Introduction
Different kinds
Special notations
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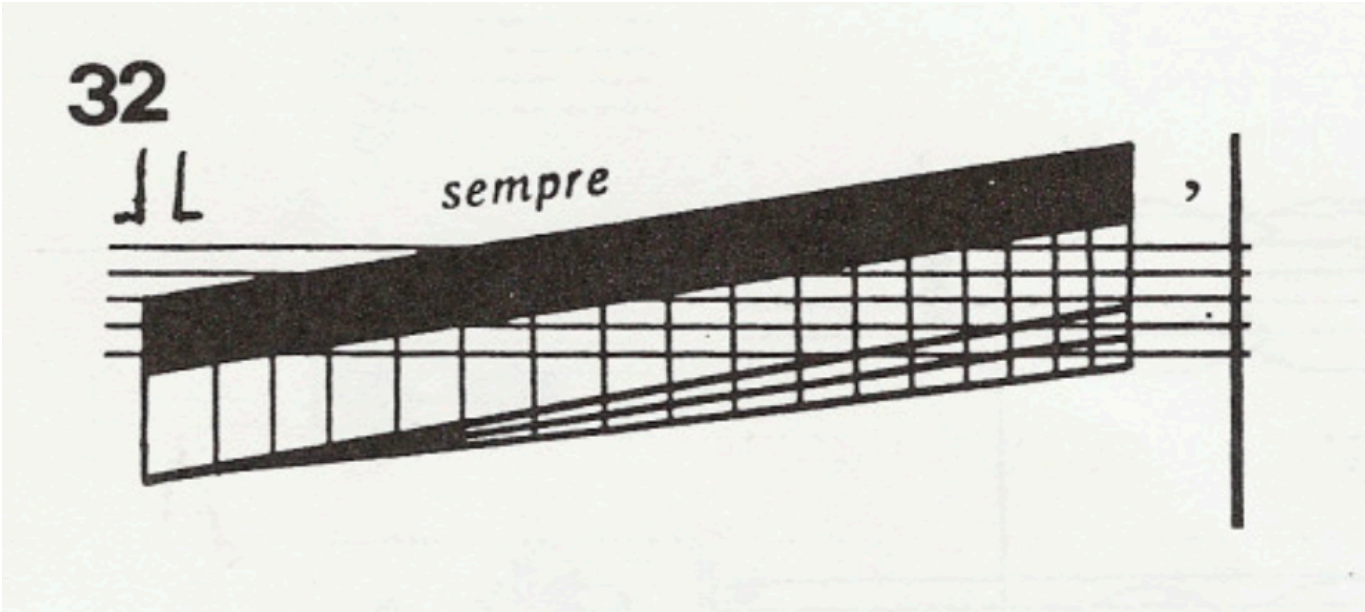
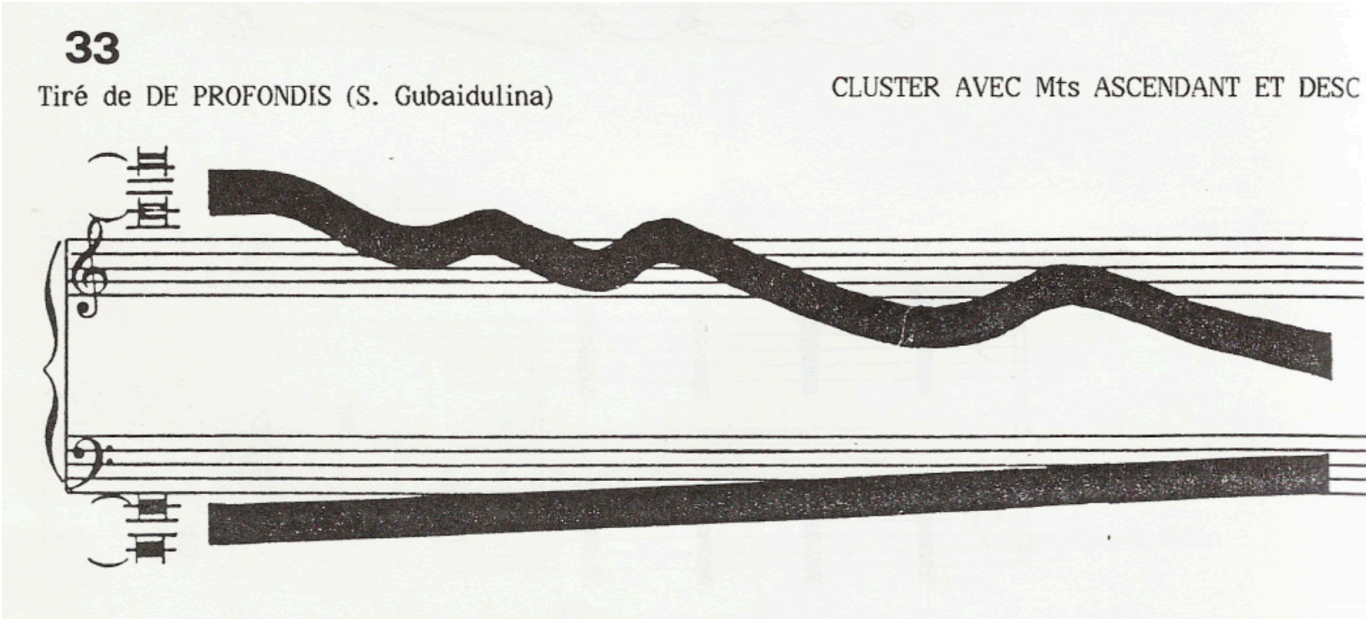
Deliria

Other examples extracted from Sofia Gubaidulina's.



Deliria (con'd)



Deliria (con'd)

György Ligeti's *Volumina*, for organ.

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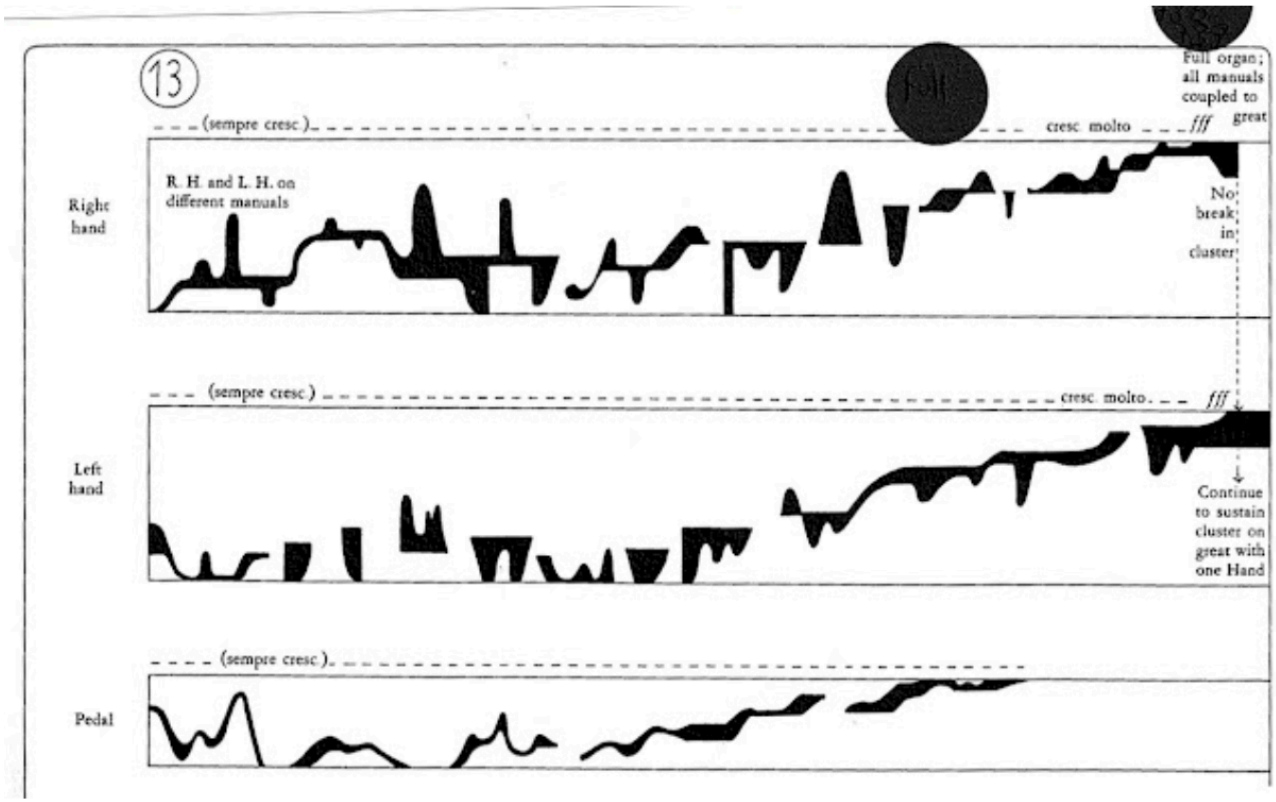

About music software

Software such as Sibelius and Finale $\Longleftarrow$ clusters pictured as *vertical bars*.

Conclusion

New notation for modern (bad?) music?

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New notation for modern (bad?) music? But the first clusters were written in 1738 by Jean-Féry Rebel for his ballet *Les Élémens*!
Simple concept, difficult to put down.