

Instruction for performers

“Deep Learning & Listening (DLL)”

generative score for **Dal Niente ensemble**
by sergey kasich

Conceptual basis:

- 1) Psychology of projective testing [1]
- 2) Deep learning for human neural networks [2]
- 3) Musical minimalism
- 4) Graphical scores interpretation
- 5) Human-machine fantasy

Description

I would like to propose for the ensemble to play the scores which will be projected on display in front of them and simultaneously shown to the audience. The scores will be generated in real time by the patch in a computer.

The score consists of the series of images (frames), presented for some time interval one after another.

The number of frames may be limited, but the order of their exposure would be random, which makes the piece potentially infinitely variable.

Each frame consists of two images:

On the left half of the frame - the image of the mineral (a photo).

On the right half - the traditional chromatic notation for the chord, corresponding to the mineral. (see Fig.1)

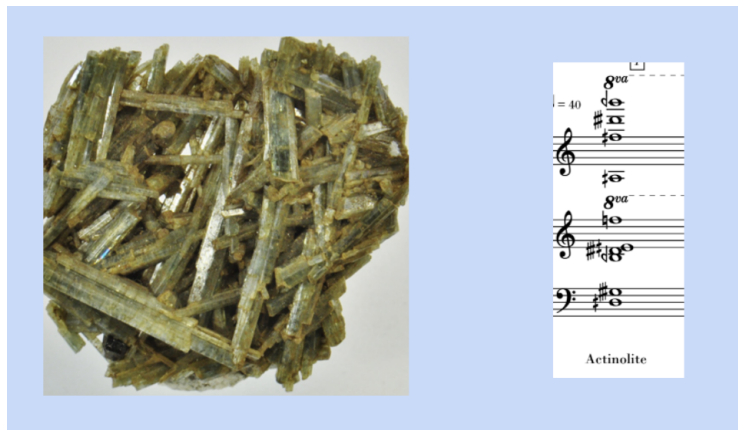


Fig.1 An example of one frame on display.

We utilize the library of data, which is a product of research allowing us to directly correspond the mineralic signatures with musical intervals.

The piece starts with a series of several frames of the minerals from the library, created in collaboration with Scripps Institute in frames prof. Lei Liang's laboratory. (see Fig. 2)

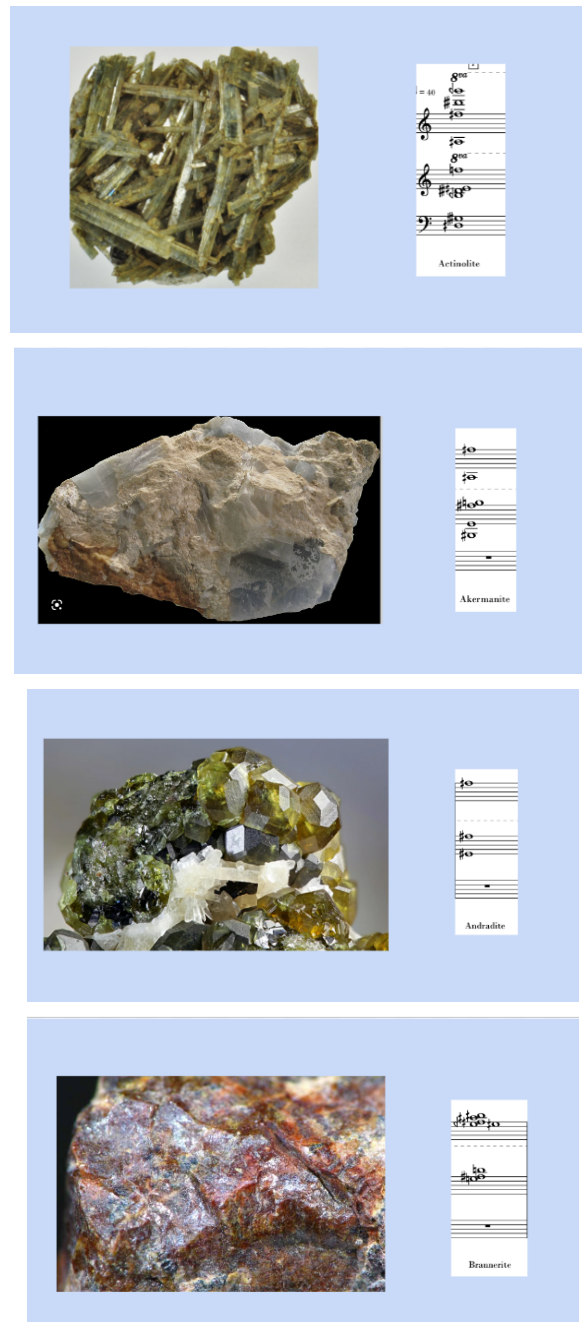


Fig.2 An example of series of frames with data taken from the library

Tempo and Duration

The longevity of each chord (and tempo of the whole piece) will be determined by the duration of the frame exposure, which might be programmed either to be random or precomposed, or equal. The general intention is to keep music evolving at a moderately slow pace.

The duration of this generative composition is undetermined, but can be kept no longer than 15 minutes for the presentation concert in May 2023.

The alteration

On a random count the mode of the score will change to keep composition more engaging and interesting. The exact direction of the change so far should be undisclosed for the Ensemble and become a surprise.

General instruction

- 1) Performers are invited to interpret the whole score to their interest.
- 2) Each performer can choose whether to use the right (traditional score) or the left (image of the mineral as a graphic score) side of the frame to play.
- 3) Performers should not be negotiating between each other on what side of the frame each of them have decided to interpret each time.

For the staging clarifications for the live-performance presentation - please refer to file:
02_Notes_DLL_for_Dal_Niente_by_kasich.pdf

References

- 1] https://en.wikipedia.org/wiki/Projective_test
- 2] https://en.wikipedia.org/wiki/Deep_learning

sergey kasich
09.05.23