

# MELODIC FRAGMENTS, 2019

GENERATIVE ART<sup>1</sup> ALGORITHM<sup>2</sup>

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## FEATURE STRUCTURE

NO. OF SEGMENTS

<5|6|7|8|9|10|12>

LINE WEIGHT

<1-15> OR <.5|1|2|5|8|10|12|15|20|25|30|35>

LINE TYPE

<CURVILINEAR |RECTILINEAR >

HUE

<0-255> OR <0|50|100|150|200|255>

SATURATION

<0-100> OR <100|200>

VALUE

<0-100> OR <0|50|100|200>

OPACITY

<0-100> OR <150|200>

GRID

<1|3 x 3|6 x 6|15 x 15|30 x 30>

## THE ALGORITHM

DRAW A NUMBER OF LINE SEGMENTS CONTINUOUSLY BY FIRST BEGINNING AT A POINT CHOSEN AT RANDOM. CHOOSE THE END POINT AT RANDOM, AND THE VARIOUS FEATURES SUCH AS LINE WEIGHT, TYPE, HUE, SATURATION, VALUE AND OPACITY OF THE LINE AND RENDER IT. BEGIN EACH SUBSEQUENT SEGMENT AT THE END OF THE PREVIOUS SEGMENT. CONTINUE THIS PROCESS TILL THE SPECIFIED NUMBER OF SEGMENTS ARE REACHED AND COMPLETE THE DRAWING BY JOINING THE FINAL SEGMENT TO THE BEGINNING OF THE FIRST SEGMENT.

STEP 1. PLACE A POINT IN THE PICTURE PLANE RANDOMLY

STEP 2. CHOSE ANOTHER POINT AT RANDOM

STEP 3. CONNECT THE TWO POINTS WITH A LINE, BY CHOOSING AT RANDOM THE FEATURES

LINE TYPE

LINE WEIGHT

HUE

SATURATION

VALUE

OPACITY

STEP 4. IF FINAL SEGMENT,

CHOOSE THE FIRST POINT OF THE FIRST SEGMENT

PERFORM STEP 3 AND STOP

ELSE

GO TO STEP 2.

## COMPOSITION

GENERATE A COLLECTION OF SUCH DRAWINGS AND ARRANGE THEM IN A GRID.

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### <sup>1</sup>GENERATIVE ART

ART THAT IN WHOLE OR IN PART HAS BEEN CREATED WITH THE USE OF AN AUTONOMOUS SYSTEM. AN AUTONOMOUS SYSTEM IN THIS CONTEXT IS GENERALLY ONE THAT IS NON-HUMAN AND CAN INDEPENDENTLY DETERMINE FEATURES OF AN ARTWORK THAT WOULD OTHERWISE REQUIRE DECISIONS MADE DIRECTLY BY THE ARTIST.

### <sup>2</sup>ALGORITHM

A STEP-BY-STEP PROCEDURE FOR SOLVING A PROBLEM OR ACCOMPLISHING SOME END.