

Nanopublication – Computational Image Analysis –
AQC0823

by Arnaud Quercy · D Minor – Research on Harmony – Variation 6 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0823

K-means clustering analysis [3] (10 colors) performed on artwork D Minor [1] – Research on Harmony – Variation 6 (AQC0823) [2] by Arnaud Quercy [2] on 2026-02-04. Documentation includes: color families, texture roughness, brightness distribution, spatial coherence.

CONTEXT

Analysis performed according to MMIDS-CMP-2025 [3] includes four metric categories: (1) Color distribution via k-means (10 colors), (2) Texture analysis using Haralick features, (3) Brightness and contrast measurements, (4) Spatial pattern characterization. Source image [5]: 2494x3325 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C5CFCE	17.9	white	lightgray
2		D2C2AD	17.5	yellow-orange	silver
3		BABFBD	15.0	gray	steel gray
4		C5B095	12.1	yellow-orange	tan
5		E0D4C3	11.3	yellow-orange	lightgrey
6		A59D94	9.8	yellow-orange	steel gray
7		1D1F24	5.4	gray	very dark gray
8		CB9C3E	5.0	yellow-orange	peru
9		8E847B	4.3	orange	gray
10		494249	1.6	red-violet	dusty mauve

Color Families:

Family	%
yellow-orange	55.6
gray	20.5
white	17.9
orange	4.3
red-violet	1.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.172
Mean Local Roughness	0.021
Roughness Uniformity	0.021
Edge Density	0.098
Mean Gradient Magnitude	0.166
Gradient Variance	0.049
Gradient Smoothness	0.0
Directional Coherence	0.007
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.635
Spatial Variation	0.09
Texture Consistency	0.42

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.697
Brightness Variance	0.172
Brightness Uniformity	0.753
Brightness Skewness	-2.251
Brightness Entropy	6.662
Rms Contrast	0.172
Michelson Contrast	1.0
Weber Contrast	0.346
Mean Local Contrast	0.022
Contrast Uniformity	0.079
Dynamic Range	1.0
Effective Dynamic Range	0.667
Shadow Percentage	6.8
Midtone Percentage	17.798
Highlight Percentage	75.402
Shadow Clipping	0.009
Highlight Clipping	0.001
Tonal Balance	0.0
Fine Contrast	0.012
Medium Contrast	0.028
Coarse Contrast	0.041
Multiscale Contrast Ratio	0.283
Edge Contrast	0.166
Contrast Clustering	0.58

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.729
Color Clustering	0.687
Color Transition Smoothness	0.587
Transition Uniformity	0.669
Sharp Transition Ratio	0.1
Transition Directionality	0.012
Mean Saturation	0.161
Saturation Variance	0.025
Low Saturation Ratio	0.892
Medium Saturation Ratio	0.081
High Saturation Ratio	0.027
Saturation Clustering	0.999
Hue Concentration	0.658
Complementary Balance	0.138
Analogous Dominance	0.821
Temperature Bias	0.674

Methodology

This analysis employs standardized computational methods for objective image characterization. Color extraction uses k-means clustering algorithm. Texture analysis applies Haralick feature extraction. Brightness metrics include mean, variance, and distribution analysis. Spatial patterns are characterized through coherence and clustering measurements. All methods are deterministic and reproducible. Analysis performed by Multimodal Institute's computational imaging systems.

REFERENCES

[1] Arnaud Quercy (2025). D Minor - Research on Harmony - Variation 6 – Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0823.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/01/d-minor-research-on-harmony-variation-6_94a.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 <https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html>

WHERE THIS WORK LIVES

THEMATIC ELEMENTS

chromesthetic mapping

D minor chord

synesthetic art

watercolor harmony

musical visualization

geometric abstraction

yellow-orange palette

Synesthetic Explorations

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

a6c2fb84669600e48d6735d110999b4da617d662ca54de309f015700b7aa0edb

Licensed under Creative Commons Attribution 4.0 International (CC BY 4.0)

Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
Certificate	20250125-0019
Asset code	AQC0823
Identifier	NAN-COL000131
Version	1
Published	2026-02-03

c/o Northwest Registered Agent, 418 Broadway Ste N
Albany, NY 12207, USA
+1 917-764-5470

publishing.artquamanima.com

Last updated: 2026-06-03

Persistent URI: <https://multimodal.institute/en/nanopubs/2026/02/AQC0823-computational-image-analysis-aqc0823.pdf>