

Nanopublication – Computational Image Analysis –
AQC0854

by Arnaud Quercy · D Minor – Research on Harmony – Variation 8 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0854

Computational image analysis [3] of artwork D Minor [1] – Research on Harmony – Variation 8 (AQC0854) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2026-02-04.

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]: 2176x2902 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D9D0C0	23.9	yellow-orange	lightgray
2		D58A33	18.0	orange	peru
3		C07326	15.2	orange	chocolate
4		D2C1AC	11.0	yellow-orange	silver
5		E1DED6	10.5	white	gainsboro
6		E0A661	8.0	orange	sandybrown
7		4F4A7E	4.6	violet	dusty mauve
8		5C4956	4.0	red-violet	dusty mauve
9		37292A	2.6	red-orange	very dark gray
10		7D6E83	2.2	red-violet	dusty mauve

Color Families:

Family	%
orange	41.2
yellow-orange	35.0
white	10.5
red-violet	6.2
violet	4.6
red-orange	2.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.185
Mean Local Roughness	0.011
Roughness Uniformity	0.015
Edge Density	0.03
Mean Gradient Magnitude	0.1
Gradient Variance	0.024
Gradient Smoothness	0.0
Directional Coherence	0.018
Pattern Complexity	0.112
Pattern Repetition	1.0
Detail Frequency Ratio	0.607
Spatial Variation	0.127
Texture Consistency	0.401

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.655
Brightness Variance	0.185
Brightness Uniformity	0.717
Brightness Skewness	-0.72
Brightness Entropy	7.155
Rms Contrast	0.185
Michelson Contrast	1.0
Weber Contrast	0.571
Mean Local Contrast	0.013
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.573
Shadow Percentage	7.975
Midtone Percentage	40.276
Highlight Percentage	51.75
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.016
Coarse Contrast	0.027
Multiscale Contrast Ratio	0.239
Edge Contrast	0.1
Contrast Clustering	0.599

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.753
Color Clustering	0.599
Color Transition Smoothness	0.741
Transition Uniformity	0.833
Sharp Transition Ratio	0.1
Transition Directionality	0.024
Mean Saturation	0.399
Saturation Variance	0.094
Low Saturation Ratio	0.514
Medium Saturation Ratio	0.182
High Saturation Ratio	0.304
Saturation Clustering	1.0
Hue Concentration	0.775
Complementary Balance	0.007
Analogous Dominance	0.874
Temperature Bias	0.876

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 8 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0854.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/01/d-minor-research-on-harmony-variation-8_9gc.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

musical visualization

watercolor harmony

geometric abstraction

Synesthetic Explorations

color theory

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

1cd4686991eae2d329538a170597b7b7eb2c9915c0e0331c4937172b05904840

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