

Nanopublication — Computational Image Analysis - AQC0894

by Arnaud Quercy · E Minor - Research on Harmony - Variations 7 · 2025












Claim 1: Computational Image Analysis - AQC0894

K-means clustering analysis [3] (10 colors) performed on artwork E Minor [1] - Research on Harmony - Variations 7 (AQC0894) [2] by Arnaud Quercy [2] on 2025-12-11. 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]: 2061x3092 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		EBA757 27.2	orange	sandybrown
2		EBB26E 13.9	orange	burlywood
3		E59B40 12.8	orange	peru
4		EAE1C2 12.7	yellow	wheat
5		D69B5A 10.2	orange	darksalmon
6		B9D45E 9.7	yellow-green	ochre
7		534E45 4.1	yellow-orange	dark brown
8		DEE163 4.0	yellow	khaki
9		ABBA2B 3.3	yellow	yellowgreen
10		372E1D 2.1	yellow-orange	darkslategray
11		2D0D04 0.3	red-orange	very dark red [Accent]

Color Families:

Family	%
orange	64.1
yellow	20.0
yellow-green	9.7
yellow-orange	6.2
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
2D0D04	red-orange	very dark red	19.7

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.136
Mean Local Roughness	0.018
Roughness Uniformity	0.021
Edge Density	0.082

Metric Value

Mean Gradient Magnitude	0.146
Gradient Variance	0.053
Gradient Smoothness	0.0
Directional Coherence	0.014
Pattern Complexity	0.111
Pattern Repetition	1.0
Detail Frequency Ratio	0.633
Spatial Variation	0.061
Texture Consistency	0.485

BRIGHTNESS & CONTRAST ANALYSIS

Metric Value

Mean Brightness	0.699
Brightness Variance	0.136
Brightness Uniformity	0.806
Brightness Skewness	-1.833
Brightness Entropy	6.384
Rms Contrast	0.136
Michelson Contrast	1.0
Weber Contrast	0.268
Mean Local Contrast	0.02
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.58
Shadow Percentage	5.744
Midtone Percentage	17.073
Highlight Percentage	77.183
Shadow Clipping	0.0
Highlight Clipping	0.002
Tonal Balance	0.0
Fine Contrast	0.01
Medium Contrast	0.025
Coarse Contrast	0.036
Multiscale Contrast Ratio	0.272
Edge Contrast	0.146
Contrast Clustering	0.515

SPATIAL DISTRIBUTION ANALYSIS

Metric Value

Spatial Coherence	0.766
Color Clustering	0.425
Color Transition Smoothness	0.641
Transition Uniformity	0.649
Sharp Transition Ratio	0.1
Transition Directionality	0.02
Mean Saturation	0.535

Metric	Value
Saturation Variance	0.036
Low Saturation Ratio	0.169
Medium Saturation Ratio	0.733
High Saturation Ratio	0.098
Saturation Clustering	0.999
Hue Concentration	0.963
Complementary Balance	0.0
Analogous Dominance	0.999
Temperature Bias	0.818

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). E Minor - Research on Harmony - Variations 7 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0894.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/e-minor-research-on-harmony-variations-7_i86.html

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

EPISTEMIC PROFILE

Claim type computational analysis

Voice third person

Epistemic status empirical measurement

Methodology computational analysis

Certainty high

CHECKSUM (SHA-256)

535c2965b98c700058f7bbe9029dedb0790d9cc48551cd20010f5bb7b-bcb5c70

Artist Arnaud Quercy

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