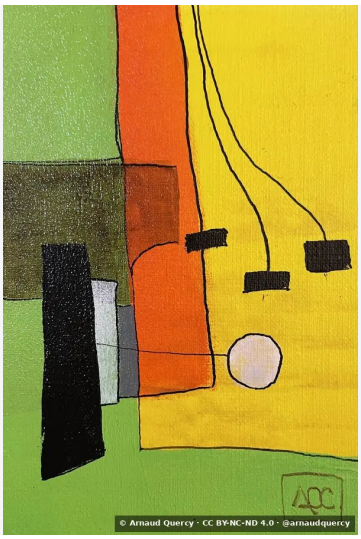
AQC0634 | NAN-COL000312

Nanopublication — Computational Image Analysis - AQC0634

by Arnaud Quercy · E minor - Research on Harmony - Variation 1 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0634

K-means clustering analysis [3] (10 colors) performed on artwork E minor - Research [1] on Harmony - Variation 1 (AQC0634) [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]: 2275x3412 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		ECCE2E	20.6	yellow-orange	goldenrod
2		80A840	18.8	yellow-green	olivedrab
3		DFB924	15.3	yellow-orange	orange
4		E25D1B	11.3	orange	chocolate
5		92B25D	9.8	yellow-green	ochre
6		120E0A	9.0	black	black
7		3F381D	5.1	yellow-orange	darkslategray
8		615F42	4.4	yellow	dark brown
9		CFCDB4	3.3	yellow	silver
10		9E4117	2.4	orange	russet
11		550B03	0.3	red-orange	very dark red [Accent]

Color Families:

Family	%
yellow-orange	41.0
yellow-green	28.6
orange	13.7
black	9.0
yellow	7.6
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
550B03	red-orange	very dark red	40.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.221
Mean Local Roughness	0.023
Roughness Uniformity	0.034
Edge Density	0.072
Mean Gradient Magnitude	0.188
Gradient Variance	0.113
Gradient Smoothness	0.0
Directional Coherence	0.019
Pattern Complexity	0.11
Pattern Repetition	1.0
Detail Frequency Ratio	0.632
Spatial Variation	0.136
Texture Consistency	0.579

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.559
Brightness Variance	0.221
Brightness Uniformity	0.605
Brightness Skewness	-1.018
Brightness Entropy	7.317
Rms Contrast	0.221
Michelson Contrast	1.0
Weber Contrast	0.789
Mean Local Contrast	0.025
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.741
Shadow Percentage	16.354
Midtone Percentage	44.424
Highlight Percentage	39.222
Shadow Clipping	0.084
Highlight Clipping	0.018
Tonal Balance	0.0
Fine Contrast	0.012
Medium Contrast	0.032
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.188
Contrast Clustering	0.421

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.75
Color Clustering	0.566
Color Transition Smoothness	0.513
Transition Uniformity	0.223
Sharp Transition Ratio	0.1
Transition Directionality	0.022
Mean Saturation	0.663
Saturation Variance	0.053
Low Saturation Ratio	0.093
Medium Saturation Ratio	0.384
High Saturation Ratio	0.523
Saturation Clustering	0.997
Hue Concentration	0.913
Complementary Balance	0.003
Analogous Dominance	0.98
Temperature Bias	0.67

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 (2024). E minor - Research on Harmony - Variation 1 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0634.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/e-minor-research-on-harmony-variation-1_72s.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 · E minor chord · synesthetic art · piano harmony visualization · acrylic color study · musical color translation · geometric abstraction · harmonic relationships

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

e24bffab4ce1bc7950b4fdf0284eb93665c87c7c5d37f53f1b5ff2e17b38ce44

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