

Nanopublication — Computational Image Analysis - AQC0592

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

Claim 1: Computational Image Analysis - AQC0592

K-means clustering analysis [3] (10 colors) performed on artwork E minor - Research [1] on Harmony (AQC0592) [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]: 2561x3415 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	CA7457	21.1	orange	indianred
2	E88455	20.0	orange	coral
3	DD8F76	15.6	red-orange	darksalmon
4	C7D3AB	12.3	yellow-green	silver
5	418334	8.0	yellow-green	dark brown
6	5D5F62	6.6	gray	grayish purple
7	8E9187	5.5	yellow-green	gray
8	161411	4.0	black	black
9	EECE2A	3.7	yellow-orange	gold
10	B33615	3.0	red-orange	firebrick
11	B8AD8A	0.3	yellow	tan [Accent]
12	32333E	0.3	violet	dusty mauve [Accent]
13	E2B5B9	0.3	red	lightpink [Accent]

Color Families:

Family	%
orange	41.1
yellow-green	25.8
red-orange	18.6
gray	6.6
black	4.0
yellow-orange	3.7
yellow	0.3
violet	0.3
red	0.3

Accent Colors:

Hex	Family Name	Chroma
B8AD8A	yellow tan	19.1

Hex	Family Name	Chroma
32333E	violet dusty mauve	7.3
E2B5B9	red lightpink	17.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.166
Mean Local Roughness	0.018
Roughness Uniformity	0.03
Edge Density	0.06
Mean Gradient Magnitude	0.141
Gradient Variance	0.077
Gradient Smoothness	0.0
Directional Coherence	0.096
Pattern Complexity	0.117
Pattern Repetition	1.0
Detail Frequency Ratio	0.65
Spatial Variation	0.064
Texture Consistency	0.504

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.569
Brightness Variance	0.166
Brightness Uniformity	0.709
Brightness Skewness	-0.876
Brightness Entropy	7.062
Rms Contrast	0.166
Michelson Contrast	1.0
Weber Contrast	0.533
Mean Local Contrast	0.02
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.506
Shadow Percentage	5.98
Midtone Percentage	72.341
Highlight Percentage	21.679
Shadow Clipping	0.019
Highlight Clipping	0.017
Tonal Balance	0.0
Fine Contrast	0.01
Medium Contrast	0.025
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.141
Contrast Clustering	0.496

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.737
Color Clustering	0.342
Color Transition Smoothness	0.64
Transition Uniformity	0.505
Sharp Transition Ratio	0.1
Transition Directionality	0.099
Mean Saturation	0.491
Saturation Variance	0.042
Low Saturation Ratio	0.238
Medium Saturation Ratio	0.678
High Saturation Ratio	0.084
Saturation Clustering	0.999
Hue Concentration	0.797
Complementary Balance	0.023
Analogous Dominance	0.787
Temperature Bias	0.73

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 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0592.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/e-minor-research-on-harmony_6img.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)

70d4f368177d6584e0a06ec64b18c4e5d0658ae0af9cf201c70b2f4ff296b072

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
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