

Nanopublication — Computational Image Analysis - AQC0589

by Arnaud Quercy · Eb Major - Research on Harmony · 2024

Claim 1: Computational Image Analysis - AQC0589

K-means clustering analysis [3] (10 colors) performed on artwork Eb Major [1] - Research on Harmony (AQC0589) [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]: 2727x3636 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		25.2	gray	dimgray
2		24.5	gray	grayish purple
3		11.5	red-orange	rosybrown
4		11.0	gray	darkslategray
5		9.7	orange	orangered
6		6.6	gray	darkslategrey
7		4.6	orange	silver
8		3.2	orange	antiquewhite
9		2.2	green	lightblue
10		1.5	orange	peru
11		0.3	yellow-orange	burlywood [Accent]
12		0.3	red-violet	dusty mauve [Accent]

Color Families:

Family	%
gray	67.3
orange	19.0
red-orange	11.5
green	2.2
yellow-orange	0.3
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
DDC685	yellow-orange	burlywood	36.0
935F8E	red-violet	dusty mauve	33.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.153

Metric	Value
Mean Local Roughness	0.043
Roughness Uniformity	0.05
Edge Density	0.143
Mean Gradient Magnitude	0.325
Gradient Variance	0.225
Gradient Smoothness	0.0
Directional Coherence	0.023
Pattern Complexity	0.126
Pattern Repetition	1.0
Detail Frequency Ratio	0.67
Spatial Variation	0.05
Texture Consistency	0.473

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.479
Brightness Variance	0.153
Brightness Uniformity	0.681
Brightness Skewness	0.631
Brightness Entropy	7.007
Rms Contrast	0.153
Michelson Contrast	1.0
Weber Contrast	0.568
Mean Local Contrast	0.045
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.565
Shadow Percentage	14.231
Midtone Percentage	75.806
Highlight Percentage	9.963
Shadow Clipping	0.004
Highlight Clipping	0.036
Tonal Balance	0.0
Fine Contrast	0.026
Medium Contrast	0.056
Coarse Contrast	0.081
Multiscale Contrast Ratio	0.326
Edge Contrast	0.325
Contrast Clustering	0.527

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.69
Color Clustering	0.492
Color Transition Smoothness	0.169
Transition Uniformity	0.0

Metric	Value
Sharp Transition Ratio	0.1
Transition Directionality	0.026
Mean Saturation	0.223
Saturation Variance	0.073
Low Saturation Ratio	0.837
Medium Saturation Ratio	0.055
High Saturation Ratio	0.108
Saturation Clustering	0.999
Hue Concentration	0.763
Complementary Balance	0.023
Analogous Dominance	0.79
Temperature Bias	0.85

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). Eb Major - Research on Harmony — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0589.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/eb-major-research-on-harmony_6la.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <https://multimodal.institute/en/publications/2025/10/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)

da1e49131d929b6755ff0e7387ec2d319e4a8ff25ab-c7c8b4893eff2a5f7c852

Artist Arnaud Quercy

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