AQC0728

Nanopublication — Computational Image Analysis - AQC0728

by Arnaud Quercy · Eb Major - Research on Harmony - Variation 3 · 2024

Claim 1: Computational Image Analysis - AQC0728

> K-means clustering analysis [3] (10 colors) performed on artwork Eb Major [1] - Research on Harmony - Variation 3 (AQC0728) [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]: 2983x3978 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		5A3D5D	18.7	red-violet	dusty mauve
2		C9BCAC	16.1	yellow-orange	silver
3		B96546	14.6	orange	indianred
4		EDA729	11.3	yellow-orange	goldenrod
5		A95430	10.3	orange	burnt sienna
6		2E292C	7.1	gray	very dark gray
7		CE7B5D	6.4	orange	peru
8		BB96C7	6.2	red-violet	steel gray
9		3B3B47	6.0	violet	dusty mauve
10		6C5877	3.5	red-violet	dusty mauve
11		541C0A	0.3	red-orange	very dark red [Accent]
12		874C5B	0.3	red	dimgray [Accent]

Color Families:

Family	%
orange	31.2
red-violet	28.3
yellow-orange	27.3
gray	7.1
violet	6.0
red-orange	0.3
red	0.3

Accent Colors:

Hex	Family	Name	Chroma
541C0A	red-orange	very dark red	34.7
874C5B	red	dimgray	27.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.194
Mean Local Roughness	0.023
Roughness Uniformity	0.022
Edge Density	0.111
Mean Gradient Magnitude	0.172
Gradient Variance	0.05
Gradient Smoothness	0.0
Directional Coherence	0.013
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.651
Spatial Variation	0.144
Texture Consistency	0.465

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.481
Brightness Variance	0.194
Brightness Uniformity	0.596
Brightness Skewness	0.016
Brightness Entropy	7.323
Rms Contrast	0.194
Michelson Contrast	1.0
Weber Contrast	0.688
Mean Local Contrast	0.024
Contrast Uniformity	0.058
Dynamic Range	1.0
Effective Dynamic Range	0.576
Shadow Percentage	31.341
Midtone Percentage	42.607
Highlight Percentage	26.051
Shadow Clipping	0.001
Highlight Clipping	0.003
Tonal Balance	0.074
Fine Contrast	0.013
Medium Contrast	0.03
Coarse Contrast	0.04
Multiscale Contrast Ratio	0.319
Edge Contrast	0.172
Contrast Clustering	0.535

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.764
Color Clustering	0.473

Metric	Value
Color Transition Smoothness	0.555
Transition Uniformity	0.667
Sharp Transition Ratio	0.1
Transition Directionality	0.017
Mean Saturation	0.435
Saturation Variance	0.063
Low Saturation Ratio	0.36
Medium Saturation Ratio	0.465
High Saturation Ratio	0.175
Saturation Clustering	0.999
Hue Concentration	0.678
Complementary Balance	0.027
Analogous Dominance	0.65
Temperature Bias	0.658

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 - Variation 3 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0728.html

[2] Quercy, A. (2024). Eb Major - Research on Harmony - Variation 3 - Gallery. https://artquamanima.com/en/artworks/2024/01/eb-major-research-on-harmony-variation-3_83c.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

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

88f2c11c5a0dde516460745863735d4a9bbbcd8c82e083156796c0839fbcd-d19

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