AQC0784

Nanopublication — Computational Image Analysis - AQC0784

by Arnaud Quercy · E Major - Research on Harmony - Variation 5 · 2024

Claim 1: Computational Image Analysis - AQC0784

> Computational image analysis [3] of artwork E Major [1] - Research on Harmony - Variation 5 (AQC0784) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2026-02-04.

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]: 2359x3538 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C9AA79	19.2	yellow-orange	ochre
2		CBB8A6	14.0	orange	tan
3		2D74C4	13.2	blue-violet	steelblue
4		AE9368	12.4	yellow-orange	ochre
5		161519	11.1	black	black
6		B5A391	10.3	orange	rosybrown
7		8C8576	9.4	yellow-orange	gray
8		C49F38	5.6	yellow-orange	peru
9		6A614F	3.8	yellow-orange	dimgray
10		163269	1.1	violet	dusty mauve
11		5184A6	0.3	blue	grayish purple [Accent]
12		DFCECB	0.3	red-orange	lightgray [Accent]
13		9DAF3E	0.3	yellow-green	yellowgreen [Accent]
14		C1C253	0.3	yellow	ochre [Accent]

Color Families:

Family	%
yellow-orange	50.4
orange	24.2
blue-violet	13.2
black	11.1
violet	1.1
blue	0.3
red-orange	0.3
yellow-green	0.3
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
5184A6	blue	grayish purple	24.0
DFCECB	red-orange	lightgray	6.4
9DAF3E	yellow-green	yellowgreen	58.3
C1C253	yellow	ochre	57.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.2
Mean Local Roughness	0.008
Roughness Uniformity	0.011
Edge Density	0.009
Mean Gradient Magnitude	0.088
Gradient Variance	0.027
Gradient Smoothness	0.0
Directional Coherence	0.031
Pattern Complexity	0.115
Pattern Repetition	1.0
Detail Frequency Ratio	0.559
Spatial Variation	0.136
Texture Consistency	0.498

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.539
Brightness Variance	0.2
Brightness Uniformity	0.63
Brightness Skewness	-1.186
Brightness Entropy	6.981
Rms Contrast	0.2
Michelson Contrast	1.0
Weber Contrast	0.838
Mean Local Contrast	0.01
Contrast Uniformity	0.0
Dynamic Range	0.996
Effective Dynamic Range	0.671
Shadow Percentage	12.625
Midtone Percentage	54.607
Highlight Percentage	32.768
Shadow Clipping	0.003
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.004
Medium Contrast	0.012
Coarse Contrast	0.028
Multiscale Contrast Ratio	0.143
Edge Contrast	0.088

Metric	Value
Contrast Clustering	0.502

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.758
Color Clustering	0.62
Color Transition Smoothness	0.769
Transition Uniformity	0.808
Sharp Transition Ratio	0.1
Transition Directionality	0.044
Mean Saturation	0.376
Saturation Variance	0.056
Low Saturation Ratio	0.422
Medium Saturation Ratio	0.419
High Saturation Ratio	0.159
Saturation Clustering	1.0
Hue Concentration	0.443
Complementary Balance	0.267
Analogous Dominance	0.722
Temperature Bias	0.455

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 Major - Research on Harmony - Variation 5 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0784.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/e-major-research-on-harmony-variation-5_8p4.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)

7ac667f00acb1b5afdb8c9f0313ee34b97195f6-dac19317be101daa276eeeff3

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