AQC0764

Nanopublication — Computational Image Analysis - AQC0764

by Arnaud Quercy · G Minor - Research on Harmony - Variation 7 · 2024

Claim 1: Computational Image Analysis - AQC0764

> K-means clustering analysis [3] (10 colors) performed on artwork G Minor [1] - Research on Harmony - Variation 7 (AQC0764) [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]: 2973x3963 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		644366	22.9	red-violet	dusty mauve
2		BEB7AB	17.7	yellow-orange	silver
3		E3AF72	13.1	orange	burlywood
4		DF953C	12.1	orange	peru
5		E7A254	9.4	orange	sandybrown
6		100E16	9.1	black	black
7		8F5917	7.0	orange	russet
8		B5ABE1	3.7	violet	lightsteelblue
9		272235	3.4	violet	very dark gray
10		E1E5EC	1.6	white	white
11		6A6134	0.3	yellow	dark brown [Accent]
12		935543	0.3	red-orange	burnt sienna [Accent]
13		8F626C	0.3	red	dimgray [Accent]

Color Families:

Family	%
orange	41.7
red-violet	22.9
yellow-orange	17.7
black	9.1
violet	7.1
white	1.6
yellow	0.3
red-orange	0.3
red	0.3

Accent Colors:

Hex	Family	Name	Chroma
6A6134	yellow	dark brown	27.2
935543	red-orange	burnt sienna	31.9
8F626C	red	dimgray	20.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.235
Mean Local Roughness	0.01
Roughness Uniformity	0.011
Edge Density	0.019
Mean Gradient Magnitude	0.101
Gradient Variance	0.023
Gradient Smoothness	0.0
Directional Coherence	0.021
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.582
Spatial Variation	0.192
Texture Consistency	0.347

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.516
Brightness Variance	0.235
Brightness Uniformity	0.544
Brightness Skewness	-0.568
Brightness Entropy	6.895
Rms Contrast	0.235
Michelson Contrast	1.0
Weber Contrast	0.82
Mean Local Contrast	0.013
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.69
Shadow Percentage	28.494
Midtone Percentage	27.706
Highlight Percentage	43.8
Shadow Clipping	0.004
Highlight Clipping	0.006
Tonal Balance	0.0
Fine Contrast	0.005
Medium Contrast	0.016
Coarse Contrast	0.028
Multiscale Contrast Ratio	0.179
Edge Contrast	0.101
Contrast Clustering	0.653

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.811
Color Clustering	0.701
Color Transition Smoothness	0.738
Transition Uniformity	0.843
Sharp Transition Ratio	0.1
Transition Directionality	0.028
Mean Saturation	0.427
Saturation Variance	0.056
Low Saturation Ratio	0.284
Medium Saturation Ratio	0.539
High Saturation Ratio	0.177
Saturation Clustering	0.999
Hue Concentration	0.546
Complementary Balance	0.004
Analogous Dominance	0.542
Temperature Bias	0.646

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). G Minor - Research on Harmony - Variation 7 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0764.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/g-minor-research-on-harmony-variation-7_8hc.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)

b8765a61e17050364b560ea45c67bf27bc905b-d5cb7f57c9da99093c8c5d9c1a

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