AQC0931

Nanopublication — Computational Image Analysis - AQC0931

by Arnaud Quercy · G Minor - Research on Harmony - Variations 13 · 2025

Claim 1: Computational Image Analysis - AQC0931

> Computational image analysis [3] of artwork G Minor [1] - Research on Harmony - Variations 13 (AQC0931) [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]: 2064x2890 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		F29E4F	19.2	orange	sandybrown
2		E1B174	16.3	yellow-orange	burlywood
3		F4B275	15.9	orange	lightsalmon
4		DB9E55	14.6	orange	peru
5		E47E0E	9.0	orange	chocolate
6		312520	7.9	orange	very dark gray
7		D1C3ED	6.4	violet	thistle
8		6A4D8B	6.4	violet	dusty mauve
9		F4E4E2	3.4	red-orange	white
10		9D763D	0.7	yellow-orange	burnt sienna
11		7D5662	0.3	red	dimgray [Accent]
12		A57BA5	0.3	red-violet	dusty mauve [Accent]

Color Families:

Family	%
orange	66.8
yellow-orange	17.0
violet	12.8
red-orange	3.4
red	0.3
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
7D5662	red	dimgray	18.0
A57BA5	red-violet	dusty mauve	28.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.18
Mean Local Roughness	0.013
Roughness Uniformity	0.02
Edge Density	0.013
Mean Gradient Magnitude	0.097
Gradient Variance	0.049
Gradient Smoothness	0.0
Directional Coherence	0.009
Pattern Complexity	0.124
Pattern Repetition	1.0
Detail Frequency Ratio	0.609
Spatial Variation	0.077
Texture Consistency	0.602

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.64
Brightness Variance	0.18
Brightness Uniformity	0.718
Brightness Skewness	-1.551
Brightness Entropy	6.698
Rms Contrast	0.18
Michelson Contrast	0.984
Weber Contrast	0.552
Mean Local Contrast	0.013
Contrast Uniformity	0.0
Dynamic Range	0.992
Effective Dynamic Range	0.651
Shadow Percentage	8.196
Midtone Percentage	27.168
Highlight Percentage	64.636
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.008
Medium Contrast	0.017
Coarse Contrast	0.027
Multiscale Contrast Ratio	0.281
Edge Contrast	0.097
Contrast Clustering	0.398

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.779
Color Clustering	0.495

Metric	Value
Color Transition Smoothness	0.748
Transition Uniformity	0.659
Sharp Transition Ratio	0.1
Transition Directionality	0.015
Mean Saturation	0.539
Saturation Variance	0.042
Low Saturation Ratio	0.144
Medium Saturation Ratio	0.724
High Saturation Ratio	0.133
Saturation Clustering	0.999
Hue Concentration	0.882
Complementary Balance	0.0
Analogous Dominance	0.922
Temperature Bias	0.924

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 (2025). G Minor - Research on Harmony - Variations 13 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0931.html

[2] Quercy, A. (2025). G Minor - Research on Harmony - Variations 13 - Gallery. https://artquamanima.com/en/artworks/2025/12/g-minor-research-on-harmony-variations-13_1hx9.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)

938c8756b60cd22ac8b9b7f54518b9f87a65c04a001629e-b292d2b977ec4646b

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