AQC0838

Nanopublication — Computational Image Analysis - AQC0838

by Arnaud Quercy · G Major - Research on Harmony - Variation 5 · 2025

Claim 1: Computational Image Analysis - AQC0838

> Computational image analysis [3] of artwork G Major [1] - Research on Harmony - Variation 5 (AQC0838) [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]: 2541x3388 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		B2C799	21.7	yellow-green	steel gray
2		C3D5AB	19.9	yellow-green	silver
3		A1B788	18.5	yellow-green	darkseagreen
4		8EA477	13.6	yellow-green	gray
5		D7E4C6	7.7	yellow-green	lightgray
6		768A64	6.3	yellow-green	grey
7		464948	4.3	gray	darkslategray
8		92510D	4.0	orange	russet
9		AE7021	2.4	orange	darkgoldenrod
10		25281C	1.6	yellow-green	very dark gray
11		C4A362	0.3	yellow-orange	ochre [Accent]
12		6D6D29	0.3	yellow	dark brown [Accent]
13		E3B5A7	0.3	red-orange	tan [Accent]

Color Families:

Family	%
yellow-green	89.3
orange	6.4
gray	4.3
yellow-orange	0.3
yellow	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
C4A362	yellow-orange	ochre	38.2
6D6D29	yellow	dark brown	38.3
E3B5A7	red-orange	tan	19.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.162
Mean Local Roughness	0.03
Roughness Uniformity	0.017
Edge Density	0.205
Mean Gradient Magnitude	0.249
Gradient Variance	0.046
Gradient Smoothness	0.14
Directional Coherence	0.005
Pattern Complexity	0.125
Pattern Repetition	1.0
Detail Frequency Ratio	0.62
Spatial Variation	0.083
Texture Consistency	0.692

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.665
Brightness Variance	0.162
Brightness Uniformity	0.756
Brightness Skewness	-1.185
Brightness Entropy	7.165
Rms Contrast	0.162
Michelson Contrast	1.0
Weber Contrast	0.498
Mean Local Contrast	0.032
Contrast Uniformity	0.457
Dynamic Range	1.0
Effective Dynamic Range	0.545
Shadow Percentage	5.932
Midtone Percentage	33.04
Highlight Percentage	61.028
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.018
Medium Contrast	0.04
Coarse Contrast	0.061
Multiscale Contrast Ratio	0.298
Edge Contrast	0.249
Contrast Clustering	0.308

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.705
Color Clustering	0.673
Color Transition Smoothness	0.392
Transition Uniformity	0.719
Sharp Transition Ratio	0.1
Transition Directionality	0.006
Mean Saturation	0.267
Saturation Variance	0.032
Low Saturation Ratio	0.787
Medium Saturation Ratio	0.149
High Saturation Ratio	0.063
Saturation Clustering	1.0
Hue Concentration	0.942
Complementary Balance	0.0
Analogous Dominance	0.986
Temperature Bias	0.115

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 Major - Research on Harmony - Variation 5 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0838.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/01/g-major-research-on-harmony-variation-5_9a4.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)

fae9715f4276b0ce8bd8d696d7a92bdfeb3bb5acd76d1809c924c1aba0f6f-d66

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