AQC0643

Nanopublication — Computational Image Analysis - AQC0643

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

Claim 1: Computational Image Analysis - AQC0643

> Computational image analysis [3] of artwork Ab Major [1] - Research on Harmony - Variation 3 (AQC0643) [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]: 2103x3155 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		859699	19.3	blue-green	lightslategray
2		748284	15.8	blue-green	gray
3		ED3914	14.7	red-orange	orangered
4		1D0F0A	11.2	red-orange	black
5		4E3D42	9.9	red	darkslategray
6		9AABAE	9.8	blue-green	steel gray
7		3A2729	7.1	red	very dark gray
8		6D6462	6.4	gray	dimgray
9		B32809	3.0	red-orange	firebrick
10		E9C9B0	2.8	orange	wheat
11		FDEBD2	0.3	yellow-orange	blanchedalmond [Accent]

Color Families:

Family	%
blue-green	44.9
red-orange	28.9
red	16.9
gray	6.4
orange	2.8
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
FDEBD2	yellow-orange	blanchedalmond	14.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.192
Mean Local Roughness	0.027
Roughness Uniformity	0.029
Edge Density	0.146
Mean Gradient Magnitude	0.24
Gradient Variance	0.095
Gradient Smoothness	0.0
Directional Coherence	0.015
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.629
Spatial Variation	0.131
Texture Consistency	0.551

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.421
Brightness Variance	0.192
Brightness Uniformity	0.542
Brightness Skewness	-0.287
Brightness Entropy	7.475
Rms Contrast	0.192
Michelson Contrast	1.0
Weber Contrast	0.82
Mean Local Contrast	0.031
Contrast Uniformity	0.103
Dynamic Range	1.0
Effective Dynamic Range	0.608
Shadow Percentage	30.222
Midtone Percentage	63.475
Highlight Percentage	6.303
Shadow Clipping	0.028
Highlight Clipping	0.009
Tonal Balance	0.166
Fine Contrast	0.014
Medium Contrast	0.039
Coarse Contrast	0.066
Multiscale Contrast Ratio	0.209
Edge Contrast	0.24
Contrast Clustering	0.449

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.747
Color Clustering	0.492

Metric	Value
Color Transition Smoothness	0.368
Transition Uniformity	0.33
Sharp Transition Ratio	0.1
Transition Directionality	0.016
Mean Saturation	0.369
Saturation Variance	0.102
Low Saturation Ratio	0.636
Medium Saturation Ratio	0.143
High Saturation Ratio	0.222
Saturation Clustering	0.997
Hue Concentration	0.789
Complementary Balance	0.078
Analogous Dominance	0.919
Temperature Bias	0.844

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). Ab Major - Research on Harmony - Variation 3 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0643.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-research-on-harmony-variation-3_76a.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 https://multimodal.institute/en/publications/2025/10/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)

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a80bdab7306d7b6a42f5ee8b32dc7a40af14f-
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Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
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