AQC0644

Nanopublication — Computational Image Analysis - AQC0644

by Arnaud Quercy · Ab Major - Research on Harmony - Variation 4 · 2024

Claim 1: Computational Image Analysis - AQC0644

> K-means clustering analysis [3] (10 colors) performed on artwork Ab Major [1] - Research on Harmony - Variation 4 (AQC0644) [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]: 1687x2530 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		78A4B9	23.4	blue	cadetblue
2		4C3339	19.7	red	darkslategray
3		8FB6C8	10.4	blue	lightsteelblue
4		A31B11	9.5	red-orange	firebrick
5		5E444B	8.1	red	darkslategrey
6		1F0F0A	7.5	red-orange	black
7		6B2112	7.3	red-orange	maroon
8		EECDB2	5.8	orange	wheat
9		BC352B	4.2	red-orange	brown
10		74737E	4.0	violet	dusty mauve
11		4D70A5	0.3	blue-violet	grayish purple [Accent]
12		B8D3DA	0.3	blue-green	lightblue [Accent]

Color Families:

Family	%
blue	33.8
red-orange	28.5
red	27.8
orange	5.8
violet	4.0
blue-violet	0.3
blue-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
4D70A5	blue-violet	grayish purple	32.1
B8D3DA	blue-green	lightblue	10.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.22
Mean Local Roughness	0.021
Roughness Uniformity	0.024
Edge Density	0.096
Mean Gradient Magnitude	0.178
Gradient Variance	0.065
Gradient Smoothness	0.0
Directional Coherence	0.011
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.629
Spatial Variation	0.157
Texture Consistency	0.38

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.411
Brightness Variance	0.22
Brightness Uniformity	0.464
Brightness Skewness	0.291
Brightness Entropy	7.176
Rms Contrast	0.22
Michelson Contrast	1.0
Weber Contrast	0.744
Mean Local Contrast	0.024
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.71
Shadow Percentage	51.558
Midtone Percentage	36.939
Highlight Percentage	11.503
Shadow Clipping	0.045
Highlight Clipping	0.005
Tonal Balance	0.0
Fine Contrast	0.011
Medium Contrast	0.03
Coarse Contrast	0.047
Multiscale Contrast Ratio	0.228
Edge Contrast	0.178
Contrast Clustering	0.62

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.785
Color Clustering	0.715

Metric	Value
Color Transition Smoothness	0.54
Transition Uniformity	0.56
Sharp Transition Ratio	0.1
Transition Directionality	0.019
Mean Saturation	0.456
Saturation Variance	0.062
Low Saturation Ratio	0.245
Medium Saturation Ratio	0.516
High Saturation Ratio	0.239
Saturation Clustering	0.998
Hue Concentration	0.323
Complementary Balance	0.178
Analogous Dominance	0.646
Temperature Bias	0.295

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 4 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0644.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-major-research-on-harmony-variation-4_76o.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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9fdf2901ed951f66d7c8349c-
c3e9977ca76d1163822895d912aed9b82764ee2b
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Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
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