AQC0676

Nanopublication — Computational Image Analysis - AQC0676

by Arnaud Quercy · Ab minor - Research on Harmony - Variation 5 · 2024

Claim 1: Computational Image Analysis - AQC0676

> K-means clustering analysis [3] (10 colors) performed on artwork Ab minor - Research [1] on Harmony - Variation 5 (AQC0676) [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]: 2247x3371 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C9CAC0	21.0	yellow-green	silver
2		D9D9D1	20.7	white	lightgray
3		B2B7B4	12.2	gray	steel gray
4		847B95	9.9	violet	dusty mauve
5		6C6681	9.7	violet	dusty mauve
6		9A96A7	8.5	violet	steel gray
7		564F69	7.4	violet	dusty mauve
8		C7B971	5.8	yellow	ochre
9		968C48	3.3	yellow	peru
10		352D27	1.6	orange	very dark gray
11		5C513A	0.3	yellow-orange	dark brown [Accent]
12		967166	0.3	red-orange	gray [Accent]
13		3E2152	0.3	red-violet	very dark purple [Accent]

Color Families:

Family	%
violet	35.4
yellow-green	21.0
white	20.7
gray	12.2
yellow	9.0
orange	1.6
yellow-orange	0.3
red-orange	0.3
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
5C513A	yellow-orange	dark brown	15.0
967166	red-orange	gray	17.7
3E2152	red-violet	very dark purple	35.4

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.181
Mean Local Roughness	0.019
Roughness Uniformity	0.019
Edge Density	0.094
Mean Gradient Magnitude	0.159
Gradient Variance	0.04
Gradient Smoothness	0.0
Directional Coherence	0.006
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.614
Spatial Variation	0.131
Texture Consistency	0.575

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.657
Brightness Variance	0.181
Brightness Uniformity	0.725
Brightness Skewness	-0.7
Brightness Entropy	7.205
Rms Contrast	0.181
Michelson Contrast	1.0
Weber Contrast	0.546
Mean Local Contrast	0.02
Contrast Uniformity	0.05
Dynamic Range	0.996
Effective Dynamic Range	0.529
Shadow Percentage	4.809
Midtone Percentage	37.022
Highlight Percentage	58.169
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.01
Medium Contrast	0.025
Coarse Contrast	0.04
Multiscale Contrast Ratio	0.255
Edge Contrast	0.159
Contrast Clustering	0.425

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.737
Color Clustering	0.744
Color Transition Smoothness	0.598
Transition Uniformity	0.735
Sharp Transition Ratio	0.1
Transition Directionality	0.011
Mean Saturation	0.159
Saturation Variance	0.02
Low Saturation Ratio	0.841
Medium Saturation Ratio	0.158
High Saturation Ratio	0.001
Saturation Clustering	1.0
Hue Concentration	0.301
Complementary Balance	0.202
Analogous Dominance	0.551
Temperature Bias	0.147

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 minor - Research on Harmony - Variation 5 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0676.html

[2] Quercy, A. (2024). Ab minor - Research on Harmony - Variation 5 - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-minor-research-on-harmony-variation-5_7j4.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)

c52acd6e2a7e188432b496e2190a3ae577aaf9315cb57b930c85902ae3e-fe629

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20240718-0172
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