

Nanopublication – Computational Image Analysis – AQC1057

by Arnaud Quercy · Watercolor Study in Ab Major No. 1 · 2026



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC1057

Computational image analysis of artwork Watercolor Study in Ab Major No. 1 (AQC1057) [1] by Arnaud Quercy [2], performed according to IDS-CMP-2025 [3], 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 2026-07-13.

CONTEXT

Analysis performed according to IDS-CMP-2025 [3] includes four metric categories: (a) Color distribution via k-means (10 colors), (b) Texture analysis using Haralick features, (c) Brightness and contrast measurements, (d) Spatial pattern characterization. Source image: 1768x2357 pixels. Analysis date: 2026-07-13.

A) COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		7E6A83	34.2	red-violet	dusty mauve
2		86728B	18.7	red-violet	dusty mauve
3		77627A	17.4	red-violet	dusty mauve
4		462243	7.8	red-violet	darkslategray
5		532F50	7.4	red-violet	dusty mauve
6		381533	4.5	red-violet	very dark purple
7		64425A	3.7	red-violet	dusty mauve
8		18051D	3.1	red-violet	very dark gray
9		060106	3.1	black	black
10		B4B2C5	0.1	violet	silver

Color Families:

Family	%
red-violet	96.8
black	3.1
violet	0.1

B) TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.137
Mean Local Roughness	0.014
Roughness Uniformity	0.01
Edge Density	0.012
Mean Gradient Magnitude	0.104
Gradient Variance	0.017
Gradient Smoothness	0.0
Directional Coherence	0.013
Pattern Complexity	0.129
Pattern Repetition	1.0
Detail Frequency Ratio	0.624
Spatial Variation	0.105
Texture Consistency	0.427

C) BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.373
Brightness Variance	0.137
Brightness Uniformity	0.632
Brightness Skewness	-1.217
Brightness Entropy	6.085
Rms Contrast	0.137
Michelson Contrast	1.0
Weber Contrast	0.664
Mean Local Contrast	0.014
Contrast Uniformity	0.205
Dynamic Range	0.855
Effective Dynamic Range	0.439
Shadow Percentage	28.616
Midtone Percentage	71.281
Highlight Percentage	0.102
Shadow Clipping	0.074
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.009
Medium Contrast	0.018
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.104
Contrast Clustering	0.573

D) SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.733
Color Clustering	0.873
Color Transition Smoothness	0.715
Transition Uniformity	0.869
Sharp Transition Ratio	0.1
Transition Directionality	0.014
Mean Saturation	0.294
Saturation Variance	0.039
Low Saturation Ratio	0.717
Medium Saturation Ratio	0.218
High Saturation Ratio	0.065
Saturation Clustering	0.998
Hue Concentration	0.942
Complementary Balance	0.005
Analogous Dominance	0.942
Temperature Bias	0.57

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 Ideamorphic Studies' computational imaging systems.

REFERENCES

[1] Quercy, A. (2026). Watercolor Study in Ab Major No. 1 - Catalogue Raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC1057.html>

[2] Quercy, A. (2025). ORCID <https://orcid.org/0009-0000-2662-7790>

[3] Quercy, A. (2026). Computational Image Analysis Standard. <https://ideamorphism.org/en/measurements/2025/09/ids-cmp-2025-computational-image-analysis-standard-5dq9.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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