

# Nanopublication — Computational Image Analysis - AQC0609

by Arnaud Quercy · Ab minor - Research on Harmony - Variation 1 · 2024

## Claim 1: Computational Image Analysis - AQC0609

Computational image analysis [3] of artwork Ab minor - Research [1] on Harmony - Variation 1 (AQC0609) [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]: 2642x3344 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	 262D47	23.8	violet	very dark purple
2	 766D8A	16.9	violet	dusty mauve
3	 665E7A	12.9	violet	dusty mauve
4	 878198	11.4	violet	dusty mauve
5	 466281	11.1	blue-violet	grayish purple
6	 56769B	9.3	blue-violet	grayish purple
7	 3D516C	7.4	blue-violet	grayish purple
8	 9E9CB0	3.9	violet	steel gray
9	 BCDD87	1.8	yellow-green	tan
10	 DBDBDD	1.6	white	gainsboro
11	 B8AF94	0.3	yellow-orange	steel gray [Accent]

### Color Families:

Family	%
violet	68.8
blue-violet	27.8
yellow-green	1.8
white	1.6
yellow-orange	0.3

### Accent Colors:

Hex	Family	Name	Chroma
B8AF94	yellow-orange	steel gray	15.0

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.155
Mean Local Roughness	0.038

Metric	Value
Roughness Uniformity	0.037
Edge Density	0.168
Mean Gradient Magnitude	0.268
Gradient Variance	0.115
Gradient Smoothness	0.0
Directional Coherence	0.017
Pattern Complexity	0.157
Pattern Repetition	1.0
Detail Frequency Ratio	0.695
Spatial Variation	0.106
Texture Consistency	0.495

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.388
Brightness Variance	0.155
Brightness Uniformity	0.599
Brightness Skewness	0.603
Brightness Entropy	7.007
Rms Contrast	0.155
Michelson Contrast	1.0
Weber Contrast	0.671
Mean Local Contrast	0.041
Contrast Uniformity	0.05
Dynamic Range	1.0
Effective Dynamic Range	0.471
Shadow Percentage	30.934
Midtone Percentage	64.786
Highlight Percentage	4.281
Shadow Clipping	0.001
Highlight Clipping	0.071
Tonal Balance	0.0
Fine Contrast	0.021
Medium Contrast	0.05
Coarse Contrast	0.052
Multiscale Contrast Ratio	0.411
Edge Contrast	0.268
Contrast Clustering	0.505

### SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.762
Color Clustering	0.718
Color Transition Smoothness	0.3
Transition Uniformity	0.281
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.019
Mean Saturation	0.338
Saturation Variance	0.027
Low Saturation Ratio	0.373
Medium Saturation Ratio	0.622
High Saturation Ratio	0.006
Saturation Clustering	0.999
Hue Concentration	0.89
Complementary Balance	0.023
Analogous Dominance	0.972
Temperature Bias	-0.725

## 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 1 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0609.html>

- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2024/01/ab-minor-research-on-harmony-variation-1\\_6t2.html](https://artquamanima.com/en/artworks/2024/01/ab-minor-research-on-harmony-variation-1_6t2.html)

- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <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)

9bcb99a666dc59bf48095b87b68e7cd4774189068800f6d299d70-ab4536a725

**Artist** Arnaud Quercy

**Date** 2024

**Collection** Synesthetic Explorations

**Certificate** 20240602-0105

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