

# Nanopublication — Computational Image Analysis - AQC0846

by Arnaud Quercy · Ab Major - Research on Harmony - Variation 11 · 2025

## Claim 1: Computational Image Analysis - AQC0846

The artwork Ab Major [1] - Research on Harmony - Variation 11 (AQC0846) [2] by Arnaud Quercy [2] underwent comprehensive computational analysis [3] on 2026-02-04. Method: k-means clustering with 10 colors extracted. Metrics documented: color distribution, texture analysis, brightness/contrast, spatial patterns.

### 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]: 2259x3012 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	D9DDDB	16.4	white	gainsboro
2	D18AB1	15.5	red-violet	rosybrown
3	DCA0C3	14.3	red-violet	plum
4	D8D2C7	12.7	yellow-orange	lightgray
5	BD7AA2	9.7	red-violet	palevioletred
6	CA6C44	9.6	orange	peru
7	BB4F1E	8.2	orange	burnt sienna
8	B595B8	6.6	red-violet	steel gray
9	312225	5.1	red	very dark gray
10	54444A	2.0	red	dusty mauve
11	EBA48E	0.3	red-orange	darksalmon [Accent]
12	8E7AA5	0.3	violet	dusty mauve [Accent]

### Color Families:

Family	%
red-violet	46.1
orange	17.8
white	16.4
yellow-orange	12.7
red	7.1
red-orange	0.3
violet	0.3

### Accent Colors:

Hex	Family	Name	Chroma
EBA48E	red-orange	darksalmon	32.6
8E7AA5	violet	dusty mauve	25.6

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.187
Mean Local Roughness	0.011
Roughness Uniformity	0.013
Edge Density	0.029
Mean Gradient Magnitude	0.104
Gradient Variance	0.026
Gradient Smoothness	0.0
Directional Coherence	0.023
Pattern Complexity	0.113
Pattern Repetition	1.0
Detail Frequency Ratio	0.595
Spatial Variation	0.107
Texture Consistency	0.443

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.645
Brightness Variance	0.187
Brightness Uniformity	0.71
Brightness Skewness	-0.896
Brightness Entropy	7.194
Rms Contrast	0.187
Michelson Contrast	1.0
Weber Contrast	0.525
Mean Local Contrast	0.013
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.655
Shadow Percentage	6.85
Midtone Percentage	44.188
Highlight Percentage	48.963
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.016
Coarse Contrast	0.029
Multiscale Contrast Ratio	0.203
Edge Contrast	0.104
Contrast Clustering	0.557

### SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.76
Color Clustering	0.613

Metric	Value
Color Transition Smoothness	0.734
Transition Uniformity	0.822
Sharp Transition Ratio	0.1
Transition Directionality	0.03
Mean Saturation	0.309
Saturation Variance	0.059
Low Saturation Ratio	0.515
Medium Saturation Ratio	0.367
High Saturation Ratio	0.118
Saturation Clustering	1.0
Hue Concentration	0.895
Complementary Balance	0.0
Analogous Dominance	0.924
Temperature Bias	0.957

## 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 (2025). Ab Major - Research on Harmony - Variation 11 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0846.html>
- [2] Quercy, A. (2025). Ab Major - Research on Harmony - Variation 11 - Gallery. [https://artquamanima.com/en/artworks/2025/01/ab-major-research-on-harmony-variation-11\\_9d8.html](https://artquamanima.com/en/artworks/2025/01/ab-major-research-on-harmony-variation-11_9d8.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

<b>Claim type</b>	computational analysis
<b>Voice</b>	third person
<b>Epistemic status</b>	empirical measurement
<b>Methodology</b>	computational analysis
<b>Certainty</b>	high

## CHECKSUM (SHA-256)

636ace4080c7fa803bd3c03a16d10b76088984c2ce45fcc3da8d10969c-c724b0

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2025
<b>Collection</b>	Synesthetic Explorations
<b>Certificate</b>	20250125-0042
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