

# Nanopublication — Computational Image Analysis - AQC0565

by Arnaud Quercy · Composition 1 · 2024

## Claim 1: Computational Image Analysis - AQC0565

K-means clustering analysis [3] (10 colors) performed on artwork Composition [1] 1 (AQC0565) [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]: 1376x2048 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	B9A5BB	16.5	red-violet	steel gray
2	9A7A4F	14.5	yellow-orange	burnt sienna
3	A894AC	14.4	red-violet	steel gray
4	C0B6D0	12.1	violet	silver
5	9C8097	10.6	red-violet	dusty mauve
6	A9885E	9.3	yellow-orange	peru
7	080B15	9.1	violet	black
8	C7D3EA	7.4	blue-violet	lightgray
9	945E76	3.8	red	dusty mauve
10	742F4A	2.3	red	dusty mauve
11	B6AC84	0.3	yellow	ochre [Accent]

### Color Families:

Family	%
red-violet	41.4
yellow-orange	23.8
violet	21.2
blue-violet	7.4
red	6.2
yellow	0.3

### Accent Colors:

Hex	Family Name	Chroma
B6AC84	yellow	ochre 22.2

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.201
Mean Local Roughness	0.032
Roughness Uniformity	0.03
Edge Density	0.168

### Metric Value

Mean Gradient Magnitude	0.226
Gradient Variance	0.082
Gradient Smoothness	0.0
Directional Coherence	0.026
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.661
Spatial Variation	0.089
Texture Consistency	0.39

### BRIGHTNESS & CONTRAST ANALYSIS

### Metric Value

Mean Brightness	0.562
Brightness Variance	0.201
Brightness Uniformity	0.643
Brightness Skewness	-1.345
Brightness Entropy	7.132
Rms Contrast	0.201
Michelson Contrast	1.0
Weber Contrast	0.667
Mean Local Contrast	0.031
Contrast Uniformity	0.055
Dynamic Range	1.0
Effective Dynamic Range	0.776
Shadow Percentage	11.041
Midtone Percentage	56.472
Highlight Percentage	32.487
Shadow Clipping	0.008
Highlight Clipping	0.002
Tonal Balance	0.0
Fine Contrast	0.019
Medium Contrast	0.039
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.226
Contrast Clustering	0.61

### SPATIAL DISTRIBUTION ANALYSIS

### Metric Value

Spatial Coherence	0.737
Color Clustering	0.849
Color Transition Smoothness	0.435
Transition Uniformity	0.462
Sharp Transition Ratio	0.1
Transition Directionality	0.028
Mean Saturation	0.299

Metric	Value
Saturation Variance	0.043
Low Saturation Ratio	0.619
Medium Saturation Ratio	0.322
High Saturation Ratio	0.06
Saturation Clustering	0.998
Hue Concentration	0.468
Complementary Balance	0.057
Analogous Dominance	0.752
Temperature Bias	0.536

## 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). Composition 1 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0565.html>

[2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2024/01/composition-1\\_6by.html](https://artquamanima.com/en/artworks/2024/01/composition-1_6by.html)

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

0c8fb9e87781d023d7d1aeaf2fca9d2d2e559911a116d-f44b78467ed0c49b70f

**Artist** Arnaud Quercy

**Date** 2024

**Collection** Untamed Creations

**Certificate** 20240313-0061

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