

# Nanopublication — Computational Image Analysis - AQC0554

by Arnaud Quercy · C Major9 - Research on Harmony - Variation 6 · 2024

## Claim 1: Computational Image Analysis - AQC0554

Computational image analysis [3] of artwork C Major9 - Research [1] on Harmony - Variation 6 (AQC0554) [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]: 2132x2843 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	 D6BA89	16.5	yellow-orange	tan
2	 292407	16.2	yellow	very dark green
3	 A97108	11.8	yellow-orange	darkgoldenrod
4	 C1826D	11.4	red-orange	rosybrown
5	 2D2937	10.4	violet	very dark gray
6	 3D371B	9.5	yellow	darkslategray
7	 916B28	8.7	yellow-orange	burnt sienna
8	 B5793F	8.2	orange	peru
9	 5B4D3E	4.8	orange	dark brown
10	 DACCC3	2.5	orange	lightgray
11	 816875	0.3	red-violet	dusty mauve [Accent]
12	 89686B	0.3	red	dimgray [Accent]

### Color Families:

Family	%
yellow-orange	37.1
yellow	25.7
orange	15.4
red-orange	11.4
violet	10.4
red-violet	0.3
red	0.3

### Accent Colors:

Hex	Family	Name	Chroma
816875	red-violet	dusty mauve	12.6
89686B	red	dimgray	14.3

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.223
Mean Local Roughness	0.015
Roughness Uniformity	0.016
Edge Density	0.065
Mean Gradient Magnitude	0.125
Gradient Variance	0.032
Gradient Smoothness	0.0
Directional Coherence	0.056
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.623
Spatial Variation	0.177
Texture Consistency	0.68

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.419
Brightness Variance	0.223
Brightness Uniformity	0.467
Brightness Skewness	0.149
Brightness Entropy	7.208
Rms Contrast	0.223
Michelson Contrast	1.0
Weber Contrast	0.815
Mean Local Contrast	0.016
Contrast Uniformity	0.0
Dynamic Range	0.992
Effective Dynamic Range	0.639
Shadow Percentage	39.636
Midtone Percentage	41.317
Highlight Percentage	19.047
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.008
Medium Contrast	0.021
Coarse Contrast	0.033
Multiscale Contrast Ratio	0.23
Edge Contrast	0.125
Contrast Clustering	0.32

### SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.746
Color Clustering	0.696

Metric	Value
Color Transition Smoothness	0.659
Transition Uniformity	0.789
Sharp Transition Ratio	0.1
Transition Directionality	0.068
Mean Saturation	0.571
Saturation Variance	0.067
Low Saturation Ratio	0.135
Medium Saturation Ratio	0.509
High Saturation Ratio	0.356
Saturation Clustering	0.999
Hue Concentration	0.808
Complementary Balance	0.026
Analogous Dominance	0.9
Temperature Bias	0.879

## 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). C Major9 - Research on Harmony - Variation 6 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0554.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2024/01/c-major9-research-on-harmony-variation-6\\_67o.html](https://artquamanima.com/en/artworks/2024/01/c-major9-research-on-harmony-variation-6_67o.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

<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)

6879a2eb5ba7c2eb80f0fb287915fb3dc801ed6913e9e952ed0fd383268da38a

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2024
<b>Collection</b>	Synesthetic Explorations
<b>Certificate</b>	20240306-0050
<b>Asset code</b>	AQC0554
<b>Version</b>	1
<b>Published</b>	2026-03-25

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Published by: Art Quam Anima Publishing New York LLC — [publishing.artquamanima.com](https://publishing.artquamanima.com)

Date of publication: 2026-03-27

Persistent URI: <https://multimodal.institute/en/nanopubs/2026/03/AQC0554-computational-image-analysis-aqc0554.pdf>

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