

# Nanopublication — Computational Image Analysis - AQC0562

by Arnaud Quercy · C Major9 - Research on Harmony - Variation 14 · 2024

## Claim 1: Computational Image Analysis - AQC0562

Computational image analysis [3] of artwork C Major9 - Research [1] on Harmony - Variation 14 (AQC0562) [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]: 3024x4032 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		B0522D	29.0 orange	burnt sienna
2		C0613B	16.6 orange	chocolate
3		9F421D	14.8 orange	russet
4		C28D73	8.0 orange	rosybrown
5		0E0C11	7.6 black	black
6		CDBFB0	6.8 yellow-orange	silver
7		D7A58C	6.2 orange	tan
8		DFD5C7	5.1 yellow-orange	lightgray
9		A27559	4.2 orange	indianred
10		322829	1.7 red	very dark gray
11		FDF7E5	0.3 yellow	white [Accent]
12		68332A	0.3 red-orange	russet [Accent]

### Color Families:

Family	%
orange	78.8
yellow-orange	11.9
black	7.6
red	1.7
yellow	0.3
red-orange	0.3

### Accent Colors:

Hex	Family	Name	Chroma
FDF7E5	yellow	white	9.1
68332A	red-orange	russet	28.6

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.189
Mean Local Roughness	0.013
Roughness Uniformity	0.008
Edge Density	0.063
Mean Gradient Magnitude	0.142
Gradient Variance	0.014
Gradient Smoothness	0.153
Directional Coherence	0.009
Pattern Complexity	0.113
Pattern Repetition	1.0
Detail Frequency Ratio	0.59
Spatial Variation	0.129
Texture Consistency	0.322

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.467
Brightness Variance	0.189
Brightness Uniformity	0.594
Brightness Skewness	-0.08
Brightness Entropy	7.15
Rms Contrast	0.189
Michelson Contrast	1.0
Weber Contrast	0.604
Mean Local Contrast	0.016
Contrast Uniformity	0.417
Dynamic Range	0.996
Effective Dynamic Range	0.741
Shadow Percentage	12.174
Midtone Percentage	70.848
Highlight Percentage	16.978
Shadow Clipping	0.012
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.007
Medium Contrast	0.019
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.142
Contrast Clustering	0.678

### SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.74
Color Clustering	0.629

Metric	Value
Color Transition Smoothness	0.651
Transition Uniformity	0.913
Sharp Transition Ratio	0.1
Transition Directionality	0.013
Mean Saturation	0.563
Saturation Variance	0.061
Low Saturation Ratio	0.18
Medium Saturation Ratio	0.366
High Saturation Ratio	0.453
Saturation Clustering	0.999
Hue Concentration	0.911
Complementary Balance	0.001
Analogous Dominance	0.941
Temperature Bias	0.944

## 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 14 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0562.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2024/01/c-major9-research-on-harmony-variation-14\\_6as.html](https://artquamanima.com/en/artworks/2024/01/c-major9-research-on-harmony-variation-14_6as.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)

eeda66e4d4813e3ca4f495247750422f3d448c3a3e55b6d07561e309e2fed-ccb

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2024
<b>Collection</b>	Synesthetic Explorations
<b>Certificate</b>	20240306-0058
<b>Asset code</b>	AQC0562
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