

# Nanopublication — Computational Image Analysis - AQC0689

by Arnaud Quercy · A minor - Research on Harmony - Variation 2 · 2024

## Claim 1: Computational Image Analysis - AQC0689

The artwork A minor - Research [1] on Harmony - Variation 2 (AQC0689) [2] by Arnaud Quercy [2] underwent comprehensive computational analysis [3] on 2026-02-03. 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]: 2157x2157 pixels. Analysis date: 2026-02-03.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	E04224	22.0	red-orange	chocolate
2	D23725	20.2	red-orange	firebrick
3	EF8A6C	16.4	red-orange	salmon
4	B2916F	10.6	orange	rosybrown
5	EAA777	9.2	orange	darksalmon
6	5F3D2F	6.8	orange	dark brown
7	C5A377	5.9	yellow-orange	ochre
8	734F42	4.2	orange	dark brown
9	3B231A	2.6	orange	very dark gray
10	CD8231	2.1	orange	peru

### Color Families:

Family	%
red-orange	58.6
orange	35.5
yellow-orange	5.9

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.146
Mean Local Roughness	0.005
Roughness Uniformity	0.015
Edge Density	0.008
Mean Gradient Magnitude	0.032
Gradient Variance	0.019
Gradient Smoothness	0.0
Directional Coherence	0.438
Pattern Complexity	0.079
Pattern Repetition	1.0

Metric	Value
Detail Frequency Ratio	0.633
Spatial Variation	0.1
Texture Consistency	0.467

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.498
Brightness Variance	0.146
Brightness Uniformity	0.706
Brightness Skewness	-0.105
Brightness Entropy	6.502
Rms Contrast	0.146
Michelson Contrast	0.968
Weber Contrast	0.517
Mean Local Contrast	0.005
Contrast Uniformity	0.0
Dynamic Range	0.961
Effective Dynamic Range	0.443
Shadow Percentage	10.022
Midtone Percentage	75.348
Highlight Percentage	14.631
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.003
Medium Contrast	0.006
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.032
Contrast Clustering	0.533

### SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.78
Color Clustering	0.356
Color Transition Smoothness	0.907
Transition Uniformity	0.876
Sharp Transition Ratio	0.1
Transition Directionality	0.446
Mean Saturation	0.63
Saturation Variance	0.036
Low Saturation Ratio	0.01
Medium Saturation Ratio	0.545
High Saturation Ratio	0.445
Saturation Clustering	1.0
Hue Concentration	0.986

Metric	Value
Complementary Balance	0.0
Analogous Dominance	1.0
Temperature Bias	1.0

## 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). A minor - Research on Harmony - Variation 2 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0689.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2024/01/a-minor-research-on-harmony-variation-2\\_7o6.html](https://artquamanima.com/en/artworks/2024/01/a-minor-research-on-harmony-variation-2_7o6.html)

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h  
[tps://multimodal.institute/en/publications/2025/10/mmids-cmp-2025-computational-image-analysis-standard-dg1.html](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)

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