

# Nanopublication — Computational Image Analysis - AQC0742

by Arnaud Quercy · A Major - Research on Harmony - Variation 3 · 2024

## Claim 1: Computational Image Analysis - AQC0742

The artwork A Major [1] - Research on Harmony - Variation 3 (AQC0742) [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]: 3024x4032 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	D1A97F	20.8	orange	tan
2	AFA89B	13.6	yellow-orange	steel gray
3	999183	12.8	yellow-orange	gray
4	D67A10	11.8	orange	chocolate
5	3D89A4	11.8	blue	steelblue
6	E18E23	8.3	orange	goldenrod
7	DACFC7	7.0	orange	lightgray
8	643B22	6.2	orange	russet
9	926B2B	5.9	yellow-orange	burnt sienna
10	1D1514	1.8	black	black
11	681000	0.3	red-orange	maroon [Accent]
12	636F15	0.3	yellow-green	dark brown [Accent]
13	2A4546	0.3	blue-green	darkslategray [Accent]
14	6E6B11	0.3	yellow	olive [Accent]
15	374544	0.3	green	darkslategray [Accent]

### Color Families:

Family	%
orange	54.1
yellow-orange	32.3
blue	11.8
black	1.8
red-orange	0.3
yellow-green	0.3
blue-green	0.3
yellow	0.3
green	0.3

### Accent Colors:

Hex	Family	Name	Chroma
681000	red-orange	maroon	48.9
636F15	yellow-green	dark brown	48.1
2A4546	blue-green	darkslategray	10.8
6E6B11	yellow	olive	46.9
374544	green	darkslategray	6.1

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.151
Mean Local Roughness	0.016
Roughness Uniformity	0.015
Edge Density	0.072
Mean Gradient Magnitude	0.151
Gradient Variance	0.039
Gradient Smoothness	0.0
Directional Coherence	0.011
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.594
Spatial Variation	0.096
Texture Consistency	0.605

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.579
Brightness Variance	0.151
Brightness Uniformity	0.74
Brightness Skewness	-0.852
Brightness Entropy	7.114
Rms Contrast	0.151
Michelson Contrast	1.0
Weber Contrast	0.495
Mean Local Contrast	0.019
Contrast Uniformity	0.041
Dynamic Range	1.0
Effective Dynamic Range	0.533
Shadow Percentage	7.235
Midtone Percentage	62.755
Highlight Percentage	30.011
Shadow Clipping	0.007
Highlight Clipping	0.001
Tonal Balance	0.0
Fine Contrast	0.007
Medium Contrast	0.024
Coarse Contrast	0.04
Multiscale Contrast Ratio	0.184

Metric	Value
Edge Contrast	0.151
Contrast Clustering	0.395

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.767
Color Clustering	0.509
Color Transition Smoothness	0.622
Transition Uniformity	0.734
Sharp Transition Ratio	0.1
Transition Directionality	0.015
Mean Saturation	0.466
Saturation Variance	0.093
Low Saturation Ratio	0.342
Medium Saturation Ratio	0.379
High Saturation Ratio	0.279
Saturation Clustering	0.999
Hue Concentration	0.638
Complementary Balance	0.095
Analogous Dominance	0.817
Temperature Bias	0.629

## 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 Major - Research on Harmony - Variation 3 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0742.html>
- [2] Quercy, A. (2024). A Major - Research on Harmony - Variation 3 - Gallery. [https://artquamanima.com/en/artworks/2024/01/a-major-research-on-harmony-variation-3\\_88s.html](https://artquamanima.com/en/artworks/2024/01/a-major-research-on-harmony-variation-3_88s.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

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

## CHECKSUM (SHA-256)

45821b158a67c05057a18c10340500da1946c3c5add0e41fe0c8877d1b-b8e481

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0239
Asset code	AQC0742
Version	1
Published	2026-02-03