

# Nanopublication — Computational Image Analysis - AQC0486

by Arnaud Quercy · Metaboles · 2023














## Claim 1: Computational Image Analysis - AQC0486

K-means clustering analysis [3] (10 colors) performed on artwork Metaboles [1] (AQC0486) [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]: 1536x2048 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		E599A6 13.9	red	tan
2		753143 13.9	red	brown
3		611E31 13.7	red	russet
4		D38794 13.4	red	palevioletred
5		894457 10.8	red	burnt sienna
6		480C1C 8.6	red	very dark red
7		BE7581 8.5	red	rosybrown
8		F3AFBD 8.0	red	lightpink
9		9D5E6D 7.0	red	gray
10		B7191D 2.2	red-orange	firebrick
11		C7C343 0.3	yellow	ochre [Accent]
12		28052C 0.3	red-violet	very dark purple [Accent]
13		CB8D3F 0.3	orange	peru [Accent]

### Color Families:

Family	%
red	97.8
red-orange	2.2
yellow	0.3
red-violet	0.3
orange	0.3

### Accent Colors:

Hex	Family	Name	Chroma
C7C343	yellow	ochre	63.6
28052C	red-violet	very dark purple	29.4
CB8D3F	orange	peru	52.5

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.217

Metric	Value
Mean Local Roughness	0.076
Roughness Uniformity	0.032
Edge Density	0.371
Mean Gradient Magnitude	0.502
Gradient Variance	0.124
Gradient Smoothness	0.297
Directional Coherence	0.014
Pattern Complexity	0.105
Pattern Repetition	1.0
Detail Frequency Ratio	0.713
Spatial Variation	0.159
Texture Consistency	0.655

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.445
Brightness Variance	0.217
Brightness Uniformity	0.512
Brightness Skewness	0.067
Brightness Entropy	7.555
Rms Contrast	0.217
Michelson Contrast	1.0
Weber Contrast	0.769
Mean Local Contrast	0.073
Contrast Uniformity	0.607
Dynamic Range	1.0
Effective Dynamic Range	0.643
Shadow Percentage	39.152
Midtone Percentage	39.02
Highlight Percentage	21.828
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.299
Fine Contrast	0.045
Medium Contrast	0.087
Coarse Contrast	0.088
Multiscale Contrast Ratio	0.506
Edge Contrast	0.502
Contrast Clustering	0.345

### SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.717
Color Clustering	0.596
Color Transition Smoothness	0.0
Transition Uniformity	0.194

Metric	Value
Sharp Transition Ratio	0.1
Transition Directionality	0.014
Mean Saturation	0.498
Saturation Variance	0.04
Low Saturation Ratio	0.108
Medium Saturation Ratio	0.709
High Saturation Ratio	0.183
Saturation Clustering	0.993
Hue Concentration	0.993
Complementary Balance	0.0
Analogous Dominance	0.997
Temperature Bias	0.998

## 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 (2023). Metaboles — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0486.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2023/01/metaboles\\_5h8.html](https://artquamanima.com/en/artworks/2023/01/metaboles_5h8.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)

df0d5b3da8c8a7d787ace2e0aea6c1b404ca35ef00db4b-b8fe4994e98744746

**Artist** Arnaud Quercy

**Date** 2023

**Collection** Untamed Creations

**Certificate** 20231231-0073

**Asset code** AQC0486

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