

# Nanopublication — Computational Image Analysis - AQC0800

by Arnaud Quercy · The Tuscan Hills - Lines Dawn by Time and Wind · 2024

## Claim 1: Computational Image Analysis - AQC0800

K-means clustering analysis [3] (10 colors) performed on artwork The [1] Tuscan Hills - Lines Dawn by Time and Wind (AQC0800) [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]: 2508x3761 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	99B79A	15.7	yellow-green	darkseagreen
2	8FA689	15.0	yellow-green	steel gray
3	A6C7AA	14.8	yellow-green	steel gray
4	82927B	12.6	yellow-green	gray
5	717C6F	10.2	yellow-green	dimgray
6	B5D9BD	9.0	yellow-green	silver
7	5F675E	8.9	yellow-green	dimgrey
8	4D4F46	5.6	yellow-green	darkslategray
9	33352A	4.6	yellow-green	darkslategrey
10	998E56	3.5	yellow	grey

### Color Families:

Family	%
yellow-green	96.5
yellow	3.5

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.16
Mean Local Roughness	0.025
Roughness Uniformity	0.015
Edge Density	0.167
Mean Gradient Magnitude	0.214
Gradient Variance	0.037
Gradient Smoothness	0.105
Directional Coherence	0.008
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.614
Spatial Variation	0.099

### Metric Value

Texture Consistency 0.784

### BRIGHTNESS & CONTRAST ANALYSIS

#### Metric Value

Mean Brightness	0.575
Brightness Variance	0.16
Brightness Uniformity	0.722
Brightness Skewness	-0.632
Brightness Entropy	7.266
Rms Contrast	0.16
Michelson Contrast	1.0
Weber Contrast	0.552
Mean Local Contrast	0.027
Contrast Uniformity	0.457
Dynamic Range	0.992
Effective Dynamic Range	0.537
Shadow Percentage	9.028
Midtone Percentage	57.197
Highlight Percentage	33.774
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.045
Fine Contrast	0.015
Medium Contrast	0.034
Coarse Contrast	0.054
Multiscale Contrast Ratio	0.268
Edge Contrast	0.214
Contrast Clustering	0.216

### SPATIAL DISTRIBUTION ANALYSIS

#### Metric Value

Spatial Coherence	0.705
Color Clustering	0.845
Color Transition Smoothness	0.461
Transition Uniformity	0.761
Sharp Transition Ratio	0.1
Transition Directionality	0.009
Mean Saturation	0.198
Saturation Variance	0.007
Low Saturation Ratio	0.915
Medium Saturation Ratio	0.085
High Saturation Ratio	0.0
Saturation Clustering	1.0
Hue Concentration	0.771
Complementary Balance	0.017
Analogous Dominance	0.701

Metric	Value
Temperature Bias	-0.195

## 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). The Tuscan Hills - Lines Dawn by Time and Wind — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0800.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2024/01/the-tuscan-hills-lines-dawn-by-time-and-wind\\_8vc.html](https://artquamanima.com/en/artworks/2024/01/the-tuscan-hills-lines-dawn-by-time-and-wind_8vc.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

<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)

37046cf23df5608d0152c2cd25602f1eedb6f9a433e0f49a8e559586ed-d32e9d

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2024
<b>Collection</b>	Mediterranean Echoes
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