

# Nanopublication — Computational Image Analysis - AQC0803

by Arnaud Quercy · Terraces of Ronda - Ancient Path · 2024

## Claim 1: Computational Image Analysis - AQC0803

Computational image analysis [3] of artwork Terraces [1] of Ronda - Ancient Path (AQC0803) [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]: 2340x3510 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	B7B5A6	15.6	yellow	steel gray
2	8BAFA8	12.9	green	darkseagreen
3	C0C5BF	12.6	white	silver
4	7DA199	11.9	green	lightslategray
5	A3A291	11.8	yellow	steel gray
6	87917B	10.3	yellow-green	gray
7	2F2643	8.6	violet	very dark purple
8	453568	6.8	violet	dusty mauve
9	624F81	5.7	violet	dusty mauve
10	657C71	3.8	yellow-green	dimgray
11	544A3D	0.3	yellow-orange	dark brown [Accent]
12	584B41	0.3	orange	dark brown [Accent]
13	19141E	0.3	red-violet	black [Accent]
14	3B6263	0.3	blue-green	darkslategray [Accent]

#### Color Families:

Family	%
yellow	27.4
green	24.8
violet	21.1
yellow-green	14.1
white	12.6
yellow-orange	0.3
orange	0.3
red-violet	0.3
blue-green	0.3

#### Accent Colors:

Hex	Family	Name	Chroma
544A3D	yellow-orange	dark brown	9.2
584B41	orange	dark brown	8.9
19141E	red-violet	black	8.5
3B6263	blue-green	darkslategray	13.9

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.182
Mean Local Roughness	0.015
Roughness Uniformity	0.014
Edge Density	0.034
Mean Gradient Magnitude	0.115
Gradient Variance	0.025
Gradient Smoothness	0.0
Directional Coherence	0.019
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.617
Spatial Variation	0.135
Texture Consistency	0.626

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.561
Brightness Variance	0.182
Brightness Uniformity	0.675
Brightness Skewness	-0.989
Brightness Entropy	7.078
Rms Contrast	0.182
Michelson Contrast	1.0
Weber Contrast	0.691
Mean Local Contrast	0.015
Contrast Uniformity	0.091
Dynamic Range	0.953
Effective Dynamic Range	0.6
Shadow Percentage	17.054
Midtone Percentage	51.579
Highlight Percentage	31.367
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.009
Medium Contrast	0.019
Coarse Contrast	0.029
Multiscale Contrast Ratio	0.303
Edge Contrast	0.115

Metric	Value
Contrast Clustering	0.374

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.732
Color Clustering	0.87
Color Transition Smoothness	0.702
Transition Uniformity	0.825
Sharp Transition Ratio	0.1
Transition Directionality	0.024
Mean Saturation	0.211
Saturation Variance	0.024
Low Saturation Ratio	0.809
Medium Saturation Ratio	0.19
High Saturation Ratio	0.001
Saturation Clustering	1.0
Hue Concentration	0.474
Complementary Balance	0.054
Analogous Dominance	0.438
Temperature Bias	-0.338

## 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). Terraces of Ronda - Ancient Path — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0803.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2024/01/terraces-of-ronda-ancient-path\\_8wi.html](https://artquamanima.com/en/artworks/2024/01/terraces-of-ronda-ancient-path_8wi.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)

c87d97c73e1570b-  
f37d0da07f6016d75a41291b2b6444f6684c5b5e3ba51a7dd

Artist	Arnaud Quercy
Date	2024
Collection	Mediterranean Echoes
Certificate	20241205-0300
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