

# Nanopublication — Computational Image Analysis - AQC0439

by Arnaud Quercy · C# minor - Reflexions 4 · 2023

## Claim 1: Computational Image Analysis - AQC0439

Analysis record [3]: C# minor - Reflexions [1] 4 (AQC0439) [2] by Arnaud Quercy [2]. Method: k-means. Parameters: 10 colors. Metrics: color distribution, texture, brightness, spatial patterns. Completed: 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]: 1536x2048 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	C5C0B5	20.6	yellow-orange	silver
2	ACACA2	18.2	yellow-green	steel gray
3	969687	15.1	yellow-green	gray
4	DBD3C7	10.7	yellow-orange	lightgray
5	6C7975	8.5	green	dimgray
6	2C2822	7.1	yellow-orange	very dark gray
7	48554D	6.4	yellow-green	darkslategray
8	A08551	5.6	yellow-orange	peru
9	77593A	4.7	orange	dark brown
10	D9B37C	3.2	yellow-orange	burlywood
11	F7F6EC	0.3	yellow	white [Accent]
12	899CB9	0.3	blue-violet	steel gray [Accent]
13	82C2D1	0.3	blue-green	skyblue [Accent]
14	1A0C04	0.3	red-orange	black [Accent]
15	9AB5C6	0.3	blue	steel gray [Accent]

### Color Families:

Family	%
yellow-orange	47.2
yellow-green	39.7
green	8.5
orange	4.7
yellow	0.3
blue-violet	0.3
blue-green	0.3
red-orange	0.3
blue	0.3

### Accent Colors:

Hex	Family	Name	Chroma
F7F6EC	yellow	white	5.1
899CB9	blue-violet	steel gray	17.0
82C2D1	blue-green	skyblue	22.0
1A0C04	red-orange	black	7.8
9AB5C6	blue	steel gray	13.4

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.193
Mean Local Roughness	0.025
Roughness Uniformity	0.022
Edge Density	0.124
Mean Gradient Magnitude	0.199
Gradient Variance	0.063
Gradient Smoothness	0.0
Directional Coherence	0.008
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.617
Spatial Variation	0.065
Texture Consistency	0.737

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.596
Brightness Variance	0.193
Brightness Uniformity	0.677
Brightness Skewness	-0.828
Brightness Entropy	7.445
Rms Contrast	0.193
Michelson Contrast	1.0
Weber Contrast	0.627
Mean Local Contrast	0.026
Contrast Uniformity	0.114
Dynamic Range	1.0
Effective Dynamic Range	0.639
Shadow Percentage	11.963
Midtone Percentage	43.106
Highlight Percentage	44.93
Shadow Clipping	0.003
Highlight Clipping	0.002
Tonal Balance	0.133
Fine Contrast	0.014
Medium Contrast	0.033
Coarse Contrast	0.049
Multiscale Contrast Ratio	0.283

Metric	Value
Edge Contrast	0.199
Contrast Clustering	0.263

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.681
Color Clustering	0.786
Color Transition Smoothness	0.489
Transition Uniformity	0.568
Sharp Transition Ratio	0.1
Transition Directionality	0.011
Mean Saturation	0.192
Saturation Variance	0.028
Low Saturation Ratio	0.799
Medium Saturation Ratio	0.192
High Saturation Ratio	0.009
Saturation Clustering	0.999
Hue Concentration	0.602
Complementary Balance	0.134
Analogous Dominance	0.76
Temperature Bias	0.428

## 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). C# minor - Reflexions 4 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0439.html>
- [2] Quercy, A. (2023). C# minor - Reflexions 4 - Gallery. [https://artquamanima.com/en/artworks/2023/01/c-minor-reflexions-4\\_4yy.html](https://artquamanima.com/en/artworks/2023/01/c-minor-reflexions-4_4yy.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)

f52fd420d56bf7e4c6c70d500e5b5ede5a4bd-d5160be7654407d5f5cb8ec5fc9

Artist	Arnaud Quercy
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