

# Nanopublication — Computational Image Analysis - AQC0591

by Arnaud Quercy · E Major - Research on Harmony · 2024

## Claim 1: Computational Image Analysis - AQC0591

Analysis record [3]: E Major [1] - Research on Harmony (AQC0591) [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]: 2617x3489 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	356CA1	26.1	blue-violet	grayish purple
2	2D5D8C	16.6	blue-violet	grayish purple
3	4581B3	16.6	blue-violet	grayish purple
4	F1C02B	9.1	yellow-orange	goldenrod
5	8BC05B	7.6	yellow-green	yellowgreen
6	C5CB75	6.7	yellow	ochre
7	535A6C	5.9	blue-violet	grayish purple
8	E4D6A6	4.6	yellow-orange	palegoldenrod
9	79ACD1	4.3	blue	cornflowerblue
10	1D1D1C	2.4	gray	very dark gray
11	165EC3	0.3	violet	royalblue [Accent]
12	75420E	0.3	orange	russet [Accent]
13	F0D4D0	0.3	red-orange	gainsboro [Accent]
14	E9CED0	0.3	red	gainsboro [Accent]

#### Color Families:

Family	%
blue-violet	65.2
yellow-orange	13.7
yellow-green	7.6
yellow	6.7
blue	4.3
gray	2.4
violet	0.3
orange	0.3
red-orange	0.3
red	0.3

#### Accent Colors:

Hex	Family	Name	Chroma
165EC3	violet	royalblue	61.7
75420E	orange	russet	42.0
F0D4D0	red-orange	gainsboro	10.8
E9CED0	red	gainsboro	10.2

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.178
Mean Local Roughness	0.015
Roughness Uniformity	0.029
Edge Density	0.048
Mean Gradient Magnitude	0.115
Gradient Variance	0.08
Gradient Smoothness	0.0
Directional Coherence	0.253
Pattern Complexity	0.112
Pattern Repetition	1.0
Detail Frequency Ratio	0.637
Spatial Variation	0.079
Texture Consistency	0.555

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.489
Brightness Variance	0.178
Brightness Uniformity	0.635
Brightness Skewness	0.51
Brightness Entropy	6.966
Rms Contrast	0.178
Michelson Contrast	1.0
Weber Contrast	0.572
Mean Local Contrast	0.016
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.498
Shadow Percentage	11.886
Midtone Percentage	63.62
Highlight Percentage	24.493
Shadow Clipping	0.005
Highlight Clipping	0.001
Tonal Balance	0.0
Fine Contrast	0.009
Medium Contrast	0.021
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.115

Metric	Value
Contrast Clustering	0.445

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.75
Color Clustering	0.374
Color Transition Smoothness	0.695
Transition Uniformity	0.456
Sharp Transition Ratio	0.1
Transition Directionality	0.26
Mean Saturation	0.593
Saturation Variance	0.028
Low Saturation Ratio	0.081
Medium Saturation Ratio	0.709
High Saturation Ratio	0.21
Saturation Clustering	0.999
Hue Concentration	0.505
Complementary Balance	0.064
Analogous Dominance	0.709
Temperature Bias	-0.552

## 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). E Major - Research on Harmony — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0591.html>
- [2] Quercy, A. (2024). E Major - Research on Harmony - Gallery. [https://artquamanima.com/en/artworks/2024/01/e-major-research-on-harmony\\_6m2.html](https://artquamanima.com/en/artworks/2024/01/e-major-research-on-harmony_6m2.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)

28e2d16468fb3284b807539804e98d21e25615eabe7f4965e5630b0340c7b-b30

Artist	Arnaud Quercy
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