

Nanopublication – Computational Image Analysis – AQC0519

by Arnaud Quercy · Le chant du Chardonneret élégant - Variation 1 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0519

Computational image analysis [3] of artwork Le chant du Chardonneret [1] élégant - Variation 1 (AQC0519) [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]: 2608x3795 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		DED4C6	21.9	yellow-orange	lightgray
2		2F2121	16.5	red-orange	very dark gray
3		DDA275	14.2	orange	darksalmon
4		602E23	9.5	red-orange	russet
5		983723	9.0	red-orange	brown
6		361E5B	7.5	violet	very dark purple
7		E18A1C	6.9	orange	goldenrod
8		B9B2B8	6.0	gray	silver
9		5C4A73	4.6	violet	dusty mauve
10		898098	3.8	violet	dusty mauve
11		2A2922	0.3	yellow	very dark gray [Accent]
12		E4EEF8	0.3	blue-violet	white [Accent]
13		E6F0F9	0.3	blue	white [Accent]
14		BE8590	0.3	red	rosybrown [Accent]

Color Families:

Family	%
red-orange	35.0
yellow-orange	21.9
orange	21.1
violet	15.9
gray	6.0
yellow	0.3
blue-violet	0.3
blue	0.3
red	0.3

Accent Colors:

Hex	Family	Name	Chroma
2A2922	yellow	very dark gray	5.1
E4EEF8	blue-violet	white	6.1
E6F0F9	blue	white	5.4
BE8590	red	rosybrown	23.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.273
Mean Local Roughness	0.023
Roughness Uniformity	0.027
Edge Density	0.091
Mean Gradient Magnitude	0.199
Gradient Variance	0.091
Gradient Smoothness	0.0
Directional Coherence	0.029
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.61
Spatial Variation	0.17
Texture Consistency	0.727

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.49
Brightness Variance	0.273
Brightness Uniformity	0.443
Brightness Skewness	0.002
Brightness Entropy	7.526
Rms Contrast	0.273
Michelson Contrast	1.0
Weber Contrast	0.832
Mean Local Contrast	0.026
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.737
Shadow Percentage	41.426
Midtone Percentage	20.489
Highlight Percentage	38.085
Shadow Clipping	0.008
Highlight Clipping	0.01
Tonal Balance	0.214
Fine Contrast	0.012
Medium Contrast	0.033
Coarse Contrast	0.054
Multiscale Contrast Ratio	0.218
Edge Contrast	0.199
Contrast Clustering	0.273

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.69
Color Clustering	0.691
Color Transition Smoothness	0.474
Transition Uniformity	0.391
Sharp Transition Ratio	0.1
Transition Directionality	0.032
Mean Saturation	0.422
Saturation Variance	0.08
Low Saturation Ratio	0.409
Medium Saturation Ratio	0.374
High Saturation Ratio	0.217
Saturation Clustering	0.999
Hue Concentration	0.727
Complementary Balance	0.016
Analogous Dominance	0.801
Temperature Bias	0.792

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). Le chant du Chardonneret élégant - Variation 1 - Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0519.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/le-chant-du-chardonneret-elegant-variation-1_5u2.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 <https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html>

WHERE THIS WORK LIVES

THEMATIC ELEMENTS

abstract cubist painting

goldfinch song interpretation

geometric color relationships

acrylic on paper

Nature in the city collection

synesthetic art

urban nature themes

small format artwork

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

34318b3bd4c85c24a66abdba1e70727400e772592c59cc4f46ce5660cecc86ee

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