

Nanopublication – Computational Image Analysis –
AQC0541

by Arnaud Quercy · Summer Afternoon Selfie · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0541

K-means clustering analysis [3] (10 colors) performed on artwork Summer [1] Afternoon Selfie (AQC0541) [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]: 1533x2044 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		DFB96C	21.4	yellow-orange	burlywood
2		F1CD80	15.8	yellow-orange	khaki
3		CAA55E	15.6	yellow-orange	ochre
4		5594A0	13.9	blue-green	cadetblue
5		6BA5AC	13.1	blue-green	lightslategray
6		3C7D8F	8.5	blue	steelblue
7		B4C7A5	4.9	yellow-green	silver
8		A86159	3.0	red-orange	indianred
9		814436	2.0	red-orange	burnt sienna
10		2A2520	1.7	gray	very dark gray
11		0F4264	0.3	blue-violet	grayish purple [Accent]
12		0B1B17	0.3	green	black [Accent]
13		573A23	0.3	orange	dark brown [Accent]
14		09162F	0.3	violet	very dark purple [Accent]
15		F8E8A9	0.3	yellow	palegoldenrod [Accent]

Color Families:

Family	%
yellow-orange	52.8
blue-green	27.0
blue	8.5
red-orange	5.0
yellow-green	4.9
gray	1.7
blue-violet	0.3
green	0.3
orange	0.3
violet	0.3
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
0F4264	blue-violet	grayish purple	25.2
0B1B17	green	black	6.1
573A23	orange	dark brown	21.5
09162F	violet	very dark purple	19.0
F8E8A9	yellow	palegoldenrod	33.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.149
Mean Local Roughness	0.021
Roughness Uniformity	0.022
Edge Density	0.111
Mean Gradient Magnitude	0.18
Gradient Variance	0.054
Gradient Smoothness	0.0
Directional Coherence	0.006
Pattern Complexity	0.125
Pattern Repetition	1.0
Detail Frequency Ratio	0.625
Spatial Variation	0.096
Texture Consistency	0.604

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.634
Brightness Variance	0.149
Brightness Uniformity	0.765
Brightness Skewness	-0.812
Brightness Entropy	7.112
Rms Contrast	0.149
Michelson Contrast	1.0
Weber Contrast	0.449
Mean Local Contrast	0.023
Contrast Uniformity	0.053
Dynamic Range	0.996
Effective Dynamic Range	0.435
Shadow Percentage	2.901
Midtone Percentage	46.857
Highlight Percentage	50.242
Shadow Clipping	0.02
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.012
Medium Contrast	0.029
Coarse Contrast	0.046
Multiscale Contrast Ratio	0.254
Edge Contrast	0.18
Contrast Clustering	0.396

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.759
Color Clustering	0.418
Color Transition Smoothness	0.552
Transition Uniformity	0.628
Sharp Transition Ratio	0.1
Transition Directionality	0.011
Mean Saturation	0.477
Saturation Variance	0.013
Low Saturation Ratio	0.067
Medium Saturation Ratio	0.917
High Saturation Ratio	0.016
Saturation Clustering	0.999
Hue Concentration	0.337
Complementary Balance	0.045
Analogous Dominance	0.617
Temperature Bias	0.237

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). Summer Afternoon Selfie – Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0541.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/summer-afternoon-selfie_62m.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

watercolor abstraction

geometric composition

Mediterranean Echoes

yellow-orange tones

blue-green contrast

minimal forms

summer light

contemporary watercolor

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

a388b03274a310076bd88a9e48a4a414de41bb3d2d38a846275a2bee760135f6

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