AQC0421

Nanopublication — Computational Image Analysis - AQC0421

by Arnaud Quercy · The city bird of Fuchu, Tokyo · 2023

Claim 1: Computational Image Analysis - AQC0421

> K-means clustering analysis [3] (10 colors) performed on artwork The [1] city bird of Fuchu, Tokyo (AQC0421) [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]: 1536x2048 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		CEB295	14.4	orange	tan
2		D7CBBB	14.1	yellow-orange	lightgray
3		AB9583	12.0	orange	rosybrown
4		5B5E64	11.1	gray	grayish purple
5		A9ABAF	9.5	gray	steel gray
6		8B7766	8.8	orange	gray
7		453D3C	8.5	gray	darkslategray
8		718296	8.2	blue-violet	grayish purple
9		94573B	6.8	orange	burnt sienna
10		C68353	6.6	orange	peru
11		DF633F	0.3	red-orange	tomato [Accent]
12		658347	0.3	yellow-green	dark brown [Accent]
13		60222D	0.3	red	russet [Accent]
14		394D88	0.3	violet	dusty mauve [Accent]
15		BCD0DE	0.3	blue	lightsteelblue [Accent]

Color Families:

Family	%
orange	48.6
gray	29.1
yellow-orange	14.1
blue-violet	8.2
red-orange	0.3
yellow-green	0.3
red	0.3
violet	0.3
blue	0.3

Accent Colors:

Hex	Family	Name	Chroma
DF633F	red-orange	tomato	63.7
658347	yellow-green	dark brown	36.4
60222D	red	russet	29.8
394D88	violet	dusty mauve	36.7
BCD0DE	blue	lightsteelblue	9.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.175
Mean Local Roughness	0.035
Roughness Uniformity	0.018
Edge Density	0.25
Mean Gradient Magnitude	0.269
Gradient Variance	0.043
Gradient Smoothness	0.23
Directional Coherence	0.006
Pattern Complexity	0.112
Pattern Repetition	1.0
Detail Frequency Ratio	0.649
Spatial Variation	0.083
Texture Consistency	0.787

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.565
Brightness Variance	0.175
Brightness Uniformity	0.691
Brightness Skewness	-0.236
Brightness Entropy	7.438
Rms Contrast	0.175
Michelson Contrast	1.0
Weber Contrast	0.59
Mean Local Contrast	0.036
Contrast Uniformity	0.548
Dynamic Range	1.0
Effective Dynamic Range	0.557
Shadow Percentage	10.967
Midtone Percentage	55.084
Highlight Percentage	33.948
Shadow Clipping	0.0
Highlight Clipping	0.001
Tonal Balance	0.216
Fine Contrast	0.021
Medium Contrast	0.045
Coarse Contrast	0.058
Multiscale Contrast Ratio	0.359

Metric	Value
Edge Contrast	0.269
Contrast Clustering	0.213

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.654
Color Clustering	0.736
Color Transition Smoothness	0.321
Transition Uniformity	0.732
Sharp Transition Ratio	0.1
Transition Directionality	0.004
Mean Saturation	0.267
Saturation Variance	0.033
Low Saturation Ratio	0.639
Medium Saturation Ratio	0.341
High Saturation Ratio	0.019
Saturation Clustering	1.0
Hue Concentration	0.557
Complementary Balance	0.209
Analogous Dominance	0.779
Temperature Bias	0.549

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). The city bird of Fuchu, Tokyo — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0421.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2023/01/the-city-bird-of-fuchu-tokyo_4ry.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

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

490e6e3058e9345283ee500ff2e064d5db6612218a07e-fc4c868513d773c451a

Artist	Arnaud Quercy
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