AQC0623

Nanopublication — Computational Image Analysis - AQC0623

by Arnaud Quercy · C# Major - Research on Harmony - Variation 2 · 2024

Claim 1: Computational Image Analysis - AQC0623

> K-means clustering analysis [3] (10 colors) performed on artwork C# Major [1] - Research on Harmony - Variation 2 (AQC0623) [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]: 2196x3294 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		2E567F	17.4	blue-violet	grayish purple
2		572F25	13.6	red-orange	russet
3		467254	13.6	yellow-green	seagreen
4		4D6D92	13.5	blue-violet	grayish purple
5		170B06	10.9	red-orange	black
6		60866D	9.8	yellow-green	dimgray
7		693F38	9.1	red-orange	dark brown
8		789AA6	5.9	blue	lightslategray
9		EACAA8	4.1	orange	wheat
10		A7CBD6	2.1	blue-green	lightsteelblue
11		F6ECD0	0.3	yellow-orange	antiquewhite [Accent]
12		ADA693	0.3	yellow	steel gray [Accent]

Color Families:

Family	%
red-orange	33.6
blue-violet	31.0
yellow-green	23.3
blue	5.9
orange	4.1
blue-green	2.1
yellow-orange	0.3
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
F6ECD0	yellow-orange	antiquewhite	15.0
ADA693	yellow	steel gray	11.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.178
Mean Local Roughness	0.032
Roughness Uniformity	0.036
Edge Density	0.13
Mean Gradient Magnitude	0.259
Gradient Variance	0.132
Gradient Smoothness	0.0
Directional Coherence	0.018
Pattern Complexity	0.124
Pattern Repetition	1.0
Detail Frequency Ratio	0.644
Spatial Variation	0.066
Texture Consistency	0.669

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.356
Brightness Variance	0.178
Brightness Uniformity	0.5
Brightness Skewness	0.674
Brightness Entropy	7.225
Rms Contrast	0.178
Michelson Contrast	1.0
Weber Contrast	0.803
Mean Local Contrast	0.035
Contrast Uniformity	0.03
Dynamic Range	1.0
Effective Dynamic Range	0.69
Shadow Percentage	45.241
Midtone Percentage	48.231
Highlight Percentage	6.528
Shadow Clipping	0.034
Highlight Clipping	0.002
Tonal Balance	0.0
Fine Contrast	0.017
Medium Contrast	0.046
Coarse Contrast	0.072
Multiscale Contrast Ratio	0.24
Edge Contrast	0.259
Contrast Clustering	0.331

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.755
Color Clustering	0.722

Metric	Value
Color Transition Smoothness	0.321
Transition Uniformity	0.137
Sharp Transition Ratio	0.1
Transition Directionality	0.019
Mean Saturation	0.496
Saturation Variance	0.035
Low Saturation Ratio	0.142
Medium Saturation Ratio	0.713
High Saturation Ratio	0.144
Saturation Clustering	0.997
Hue Concentration	0.155
Complementary Balance	0.083
Analogous Dominance	0.566
Temperature Bias	-0.239

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). C# Major - Research on Harmony - Variation 2 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0623.html

[2] Quercy, A. (2024). C# Major - Research on Harmony - Variation 2 - Gallery. https://artquamanima.com/en/artworks/2024/01/c-major-research-on-harmony-variation-2_6yi.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)

6f5f198e5f9cbddeca74c031a3172cf8614991c2718d7b81a2a8f2157771f-d67

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