AQC0588

Nanopublication — Computational Image Analysis - AQC0588

by Arnaud Quercy · C# Major - Research on Harmony - Variation 1 · 2024

Claim 1: Computational Image Analysis - AQC0588

> K-means clustering analysis [3] (10 colors) performed on artwork C# Major [1] - Research on Harmony - Variation 1 (AQC0588) [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]: 2501x3335 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		73415B	24.2	red	dusty mauve
2		64364E	20.5	red	dusty mauve
3		83516A	13.8	red	dusty mauve
4		6CE2E3	12.4	blue-green	skyblue
5		60CFD0	8.7	blue-green	mediumturquoise
6		96697F	7.4	red	dusty mauve
7		F2E3E1	4.6	red-orange	white
8		B0879C	4.5	red	rosybrown
9		D1ACC0	2.9	red-violet	silver
10		1F1F29	0.9	violet	very dark gray
11		115EAE	0.3	blue-violet	darkcyan [Accent]
12		2A4858	0.3	blue	darkslategray [Accent]
13		20605B	0.3	green	darkslategray [Accent]

Color Families:

Family	%
red	70.5
blue-green	21.1
red-orange	4.6
red-violet	2.9
violet	0.9
blue-violet	0.3
blue	0.3
green	0.3

Accent Colors:

Hex	Family	Name	Chroma
115EAE	blue-violet	darkcyan	49.8
2A4858	blue	darkslategray	14.3
20605B	green	darkslategray	21.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.208
Mean Local Roughness	0.061
Roughness Uniformity	0.06
Edge Density	0.204
Mean Gradient Magnitude	0.422
Gradient Variance	0.285
Gradient Smoothness	0.0
Directional Coherence	0.017
Pattern Complexity	0.128
Pattern Repetition	1.0
Detail Frequency Ratio	0.718
Spatial Variation	0.115
Texture Consistency	0.72

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.469
Brightness Variance	0.208
Brightness Uniformity	0.557
Brightness Skewness	0.682
Brightness Entropy	7.123
Rms Contrast	0.208
Michelson Contrast	1.0
Weber Contrast	0.639
Mean Local Contrast	0.062
Contrast Uniformity	0.031
Dynamic Range	1.0
Effective Dynamic Range	0.592
Shadow Percentage	36.998
Midtone Percentage	35.635
Highlight Percentage	27.367
Shadow Clipping	0.005
Highlight Clipping	0.012
Tonal Balance	0.0
Fine Contrast	0.039
Medium Contrast	0.076
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.422
Contrast Clustering	0.28

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.702
Color Clustering	0.78
Color Transition Smoothness	0.0
Transition Uniformity	0.0
Sharp Transition Ratio	0.1
Transition Directionality	0.019
Mean Saturation	0.414
Saturation Variance	0.017
Low Saturation Ratio	0.176
Medium Saturation Ratio	0.82
High Saturation Ratio	0.005
Saturation Clustering	0.997
Hue Concentration	0.562
Complementary Balance	0.002
Analogous Dominance	0.76
Temperature Bias	0.522

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 1 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0588.html

[2] Quercy, A. (2024). C# Major - Research on Harmony - Variation 1 - Gallery. https://artquamanima.com/en/artworks/2024/01/c-major-research-on-harmony-variation-1_6kw.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)

6c863c1336d685c50c9e6bf5419facd3caf4d8de51fba17ab-b181781035a31a8

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