

Nanopublication — Computational Image Analysis - AQC0666

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














Claim 1: Computational Image Analysis - AQC0666

Computational image analysis [3] of artwork C# minor - Research [1] on Harmony - Variation 2 (AQC0666) [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]: 2493x3324 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name	
1		BFC7C5	22.9	white	silver
2		DAD6D2	20.6	white	lightgray
3		9FB9BC	13.7	blue-green	steel gray
4		75A8AC	10.0	blue-green	cadetblue
5		538C90	7.9	blue-green	blue gray
6		337068	7.4	green	seagreen
7		263C37	5.0	green	darkslategray
8		D1B87E	4.8	yellow-orange	tan
9		92948A	4.0	yellow-green	gray
10		666357	3.6	yellow	dimgray
11		997752	0.3	orange	burnt sienna [Accent]
12		F9EBE8	0.3	red-orange	white [Accent]
13		515B82	0.3	blue-violet	grayish purple [Accent]

Color Families:

Family	%
white	43.5
blue-green	31.6
green	12.5
yellow-orange	4.8
yellow-green	4.0
yellow	3.6
orange	0.3
red-orange	0.3
blue-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
997752	orange	burnt sienna	26.2
F9EBE8	red-orange	white	5.0
515B82	blue-violet	grayish purple	23.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.184
Mean Local Roughness	0.018
Roughness Uniformity	0.018
Edge Density	0.087
Mean Gradient Magnitude	0.155
Gradient Variance	0.04
Gradient Smoothness	0.0
Directional Coherence	0.01
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.612
Spatial Variation	0.138
Texture Consistency	0.692

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.656
Brightness Variance	0.184
Brightness Uniformity	0.719
Brightness Skewness	-0.955
Brightness Entropy	7.231
Rms Contrast	0.184
Michelson Contrast	1.0
Weber Contrast	0.563
Mean Local Contrast	0.02
Contrast Uniformity	0.106
Dynamic Range	0.996
Effective Dynamic Range	0.576
Shadow Percentage	7.141
Midtone Percentage	32.577
Highlight Percentage	60.282
Shadow Clipping	0.003
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.01
Medium Contrast	0.025
Coarse Contrast	0.04
Multiscale Contrast Ratio	0.245
Edge Contrast	0.155
Contrast Clustering	0.308

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.711
Color Clustering	0.794
Color Transition Smoothness	0.609
Transition Uniformity	0.726
Sharp Transition Ratio	0.1
Transition Directionality	0.014
Mean Saturation	0.214
Saturation Variance	0.036
Low Saturation Ratio	0.697
Medium Saturation Ratio	0.293
High Saturation Ratio	0.01
Saturation Clustering	1.0
Hue Concentration	0.685
Complementary Balance	0.037
Analogous Dominance	0.825
Temperature Bias	-0.673

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# minor - Research on Harmony - Variation 2 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0666.html>
- [2] Quercy, A. (2024). C# minor - Research on Harmony - Variation 2 - Gallery. https://artquamanima.com/en/artworks/2024/01/c-minor-research-on-harmony-variation-2_7f8.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <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)

4a6af6dcb150f2485e2185e0ad-
d5bff0af5f63009d08189ce610f147b742b833

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20240718-0162
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Version	1
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