

Nanopublication — Computational Image Analysis - AQC0885

by Arnaud Quercy · Ab Minor - Research on Harmony - Variations 14 · 2025

Claim 1: Computational Image Analysis - AQC0885

Computational image analysis [3] of artwork Ab Minor [1] - Research on Harmony - Variations 14 (AQC0885) [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 2025-12-11.

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]: 1968x2952 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	D8D4DA	18.0	white	lightgray
2	8999B2	16.6	blue-violet	lightslategray
3	707E98	15.7	blue-violet	grayish purple
4	A7B5CB	11.5	blue-violet	lightsteelblue
5	596277	9.8	blue-violet	grayish purple
6	73C1DE	8.8	blue	skyblue
7	665735	8.6	yellow-orange	dark brown
8	E3DD31	5.0	yellow	gold
9	F2E2AA	3.2	yellow	palegoldenrod
10	272118	2.7	yellow-orange	very dark gray
11	97D9E0	0.3	blue-green	skyblue [Accent]
12	91C0AC	0.3	green	darkseagreen [Accent]
13	2E2014	0.3	orange	very dark gray [Accent]

Color Families:

Family	%
blue-violet	53.6
white	18.0
yellow-orange	11.3
blue	8.8
yellow	8.3
blue-green	0.3
green	0.3
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
97D9E0	blue-green	skyblue	21.5
91C0AC	green	darkseagreen	20.6
2E2014	orange	very dark gray	12.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.193
Mean Local Roughness	0.048
Roughness Uniformity	0.04
Edge Density	0.209
Mean Gradient Magnitude	0.383
Gradient Variance	0.178
Gradient Smoothness	0.0
Directional Coherence	0.008
Pattern Complexity	0.123
Pattern Repetition	1.0
Detail Frequency Ratio	0.655
Spatial Variation	0.074
Texture Consistency	0.827

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.609
Brightness Variance	0.193
Brightness Uniformity	0.683
Brightness Skewness	-0.36
Brightness Entropy	7.524
Rms Contrast	0.193
Michelson Contrast	1.0
Weber Contrast	0.585
Mean Local Contrast	0.052
Contrast Uniformity	0.202
Dynamic Range	1.0
Effective Dynamic Range	0.569
Shadow Percentage	6.621
Midtone Percentage	50.851
Highlight Percentage	42.528
Shadow Clipping	0.007
Highlight Clipping	0.01
Tonal Balance	0.255
Fine Contrast	0.026
Medium Contrast	0.064
Coarse Contrast	0.088
Multiscale Contrast Ratio	0.295
Edge Contrast	0.383
Contrast Clustering	0.173

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.704
Color Clustering	0.508
Color Transition Smoothness	0.035
Transition Uniformity	0.0
Sharp Transition Ratio	0.1
Transition Directionality	0.009
Mean Saturation	0.282
Saturation Variance	0.041
Low Saturation Ratio	0.614
Medium Saturation Ratio	0.331
High Saturation Ratio	0.054
Saturation Clustering	0.998
Hue Concentration	0.426
Complementary Balance	0.207
Analogous Dominance	0.711
Temperature Bias	-0.427

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 (2025). Ab Minor - Research on Harmony - Variations 14 — Catalogue raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0885.html>
- [2] Quercy, A. (2025). Ab Minor - Research on Harmony - Variations 14 - Gallery. https://artquamanima.com/en/artworks/2025/11/ab-minor-research-on-harmony-variations-14_i4x.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)

e225822b1fd4c773c1832cb -
c461ad4eacf2500e8d0f808015ffce04769ecd857

Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
Certificate	20251123-0071
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