

Nanopublication – Computational Image Analysis – AQC0685

by Arnaud Quercy · Ab Octaves – Reflexions 19 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0685

Computational image analysis [3] of artwork Ab Octaves [1] – Reflexions 19 (AQC0685) [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]: 2666x3555 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C8CCCC	14.7	white	lightgray
2		ACAEAB	14.4	gray	steel gray
3		C2BDB5	12.4	yellow-orange	silver
4		B3BFC4	12.1	blue	lightsteelblue
5		707676	10.2	gray	dimgray
6		848986	10.2	gray	gray
7		D7DADB	9.9	white	gainsboro
8		989C99	9.1	gray	steel gray
9		5D6061	6.2	gray	dimgray
10		2F2D2C	0.8	gray	very dark gray
11		80574B	0.3	red-orange	dimgray [Accent]
12		5A4034	0.3	orange	dark brown [Accent]

Color Families:

Family	%
gray	50.9
white	24.6
yellow-orange	12.4
blue	12.1
red-orange	0.3
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
80574B	red-orange	dimgray	20.5
5A4034	orange	dark brown	15.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.147
Mean Local Roughness	0.015
Roughness Uniformity	0.016
Edge Density	0.053
Mean Gradient Magnitude	0.134
Gradient Variance	0.03
Gradient Smoothness	0.0
Directional Coherence	0.005
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.61
Spatial Variation	0.105
Texture Consistency	0.675

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.663
Brightness Variance	0.147
Brightness Uniformity	0.778
Brightness Skewness	-0.761
Brightness Entropy	7.05
Rms Contrast	0.147
Michelson Contrast	1.0
Weber Contrast	0.464
Mean Local Contrast	0.017
Contrast Uniformity	0.0
Dynamic Range	0.984
Effective Dynamic Range	0.455
Shadow Percentage	1.506
Midtone Percentage	38.55
Highlight Percentage	59.944
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.008
Medium Contrast	0.021
Coarse Contrast	0.035
Multiscale Contrast Ratio	0.224
Edge Contrast	0.134
Contrast Clustering	0.325

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.681
Color Clustering	0.918
Color Transition Smoothness	0.664
Transition Uniformity	0.795
Sharp Transition Ratio	0.1
Transition Directionality	0.008
Mean Saturation	0.074
Saturation Variance	0.003
Low Saturation Ratio	0.992
Medium Saturation Ratio	0.008
High Saturation Ratio	0.0
Saturation Clustering	1.0
Hue Concentration	0.711
Complementary Balance	0.13
Analogous Dominance	0.864
Temperature Bias	-0.736

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). Ab Octaves - Reflexions 19 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0685.html>

[2] Quercy, A. (2024). Ab Octaves - Reflexions 19 - Gallery. https://artquamanima.com/en/artworks/2024/01/ab-octaves-reflexions-19_7mm.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>

WHERE THIS WORK LIVES

THEMATIC ELEMENTS

chromesthetic mapping

synesthetic art

Ab octaves

watercolor translation

musical visualization

harmonic relationships

Synesthetic Explorations

contemporary synesthesia

pitch-to-color mapping

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

99d041675b828d882c0242f16e0846c5ff48c8b4593cd5831836445154114390

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