

Nanopublication – Computational Image Analysis –
AQC0900

by Arnaud Quercy · C Major – Research on Harmony – Variations 15 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0900

K-means clustering analysis [3] (10 colors) performed on artwork C Major [1] – Research on Harmony – Variations 15 (AQC0900) [2] by Arnaud Quercy [2] on 2025-12-11. 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]: 2058x2058 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E44A02	20.9	orange	orangered
2		E68F36	16.9	orange	peru
3		EA9D43	16.6	orange	sandybrown
4		E47702	15.6	orange	darkorange
5		EAD9B2	9.9	yellow-orange	wheat
6		614E3D	6.3	orange	dark brown
7		ECBD4D	5.7	yellow-orange	goldenrod
8		E1A49D	4.6	red-orange	tan
9		3E1108	1.8	red-orange	very dark red
10		C42927	1.5	red-orange	firebrick
11		FFF9C7	0.3	yellow	lemonchiffon [Accent]

Color Families:

Family	%
orange	76.3
yellow-orange	15.7
red-orange	8.0
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
FFF9C7	yellow	lemonchiffon	25.7

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.161
Mean Local Roughness	0.016
Roughness Uniformity	0.025
Edge Density	0.036
Mean Gradient Magnitude	0.131
Gradient Variance	0.067
Gradient Smoothness	0.0
Directional Coherence	0.013
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.628
Spatial Variation	0.069
Texture Consistency	0.726

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.583
Brightness Variance	0.161
Brightness Uniformity	0.723
Brightness Skewness	-0.355
Brightness Entropy	7.134
Rms Contrast	0.161
Michelson Contrast	1.0
Weber Contrast	0.49
Mean Local Contrast	0.018
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.541
Shadow Percentage	6.305
Midtone Percentage	64.768
Highlight Percentage	28.927
Shadow Clipping	0.003
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.009
Medium Contrast	0.022
Coarse Contrast	0.035
Multiscale Contrast Ratio	0.246
Edge Contrast	0.131
Contrast Clustering	0.274

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.741
Color Clustering	0.458
Color Transition Smoothness	0.668
Transition Uniformity	0.536
Sharp Transition Ratio	0.1
Transition Directionality	0.019
Mean Saturation	0.737
Saturation Variance	0.069
Low Saturation Ratio	0.107
Medium Saturation Ratio	0.189
High Saturation Ratio	0.704
Saturation Clustering	0.999
Hue Concentration	0.983
Complementary Balance	0.0
Analogous Dominance	1.0
Temperature Bias	1.0

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). C Major - Research on Harmony - Variations 15 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0900.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/c-major-research-on-harmony-variations-15_iac.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

C Major triad

synesthetic art

acrylic on paper

harmonic translation

geometric abstraction

Synesthetic Explorations

musical visualization

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

450f9c87ea3f6ab9fa842a067a1a1851b41a7484620a5239097840cafdbb6ac7e

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