

Nanopublication – Computational Image Analysis – AQC0901

by Arnaud Quercy · Db Minor - Research on Harmony - Variations 9 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0901

K-means clustering (10 colors) performed on artwork Db Minor - Research on Harmony - Variations 9 (AQC0901) [1] by Arnaud Quercy [2] on 2025-12-11, according to IDS-CMP-2025 [3]. Documentation includes: color families, texture roughness, brightness distribution, spatial coherence.

CONTEXT

Analysis performed according to IDS-CMP-2025 [3] includes four metric categories: (a) Color distribution via k-means (10 colors), (b) Texture analysis using Haralick features, (c) Brightness and contrast measurements, (d) Spatial pattern characterization. Source image: 2089x2089 pixels. Analysis date: 2025-12-11.

A) COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		5ABCD8	21.7	blue	mediumturquoise
2		726755	19.9	yellow-orange	dimgray
3		5F5547	14.6	yellow-orange	dark brown
4		EDDEAB	11.9	yellow	palegoldenrod
5		867A6A	8.0	yellow-orange	gray
6		5B81B7	7.1	blue-violet	grayish purple
7		4491CE	7.1	blue-violet	grayish purple
8		7D9CC8	6.5	blue-violet	cornflowerblue
9		F5DE2C	2.1	yellow	gold
10		252A2A	1.0	gray	very dark gray
11		89D6E3	0.3	blue-green	skyblue [Accent]
12		E3F0D8	0.3	yellow-green	beige [Accent]
13		0C0D22	0.3	violet	very dark purple [Accent]
14		9BC8C5	0.3	green	lightsteelblue [Accent]
15		AE9C8B	0.3	orange	rosybrown [Accent]

Color Families:

Family	%
yellow-orange	42.5
blue	21.7
blue-violet	20.7
yellow	14.0
gray	1.0
blue-green	0.3
yellow-green	0.3
violet	0.3
green	0.3
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
89D6E3	blue-green	skyblue	25.2
E3F0D8	yellow-green	beige	13.5
0C0D22	violet	very dark purple	15.2
9BC8C5	green	lightsteelblue	15.3
AE9C8B	orange	rosybrown	11.7

B) TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.171
Mean Local Roughness	0.02
Roughness Uniformity	0.02
Edge Density	0.106
Mean Gradient Magnitude	0.161
Gradient Variance	0.043
Gradient Smoothness	0.0
Directional Coherence	0.025
Pattern Complexity	0.13
Pattern Repetition	1.0
Detail Frequency Ratio	0.637
Spatial Variation	0.127
Texture Consistency	0.611

C) BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.54
Brightness Variance	0.171
Brightness Uniformity	0.684
Brightness Skewness	0.532
Brightness Entropy	7.14
Rms Contrast	0.171
Michelson Contrast	1.0
Weber Contrast	0.577
Mean Local Contrast	0.022
Contrast Uniformity	0.085
Dynamic Range	1.0
Effective Dynamic Range	0.549
Shadow Percentage	6.066
Midtone Percentage	76.355
Highlight Percentage	17.579
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.011
Medium Contrast	0.027
Coarse Contrast	0.039
Multiscale Contrast Ratio	0.278
Edge Contrast	0.161
Contrast Clustering	0.389

D) SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.748
Color Clustering	0.318
Color Transition Smoothness	0.581
Transition Uniformity	0.702
Sharp Transition Ratio	0.1
Transition Directionality	0.032
Mean Saturation	0.395
Saturation Variance	0.035
Low Saturation Ratio	0.344
Medium Saturation Ratio	0.615
High Saturation Ratio	0.041
Saturation Clustering	0.999
Hue Concentration	0.146
Complementary Balance	0.169
Analogous Dominance	0.508
Temperature Bias	-0.017

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 Ideamorphic Studies' computational imaging systems.

REFERENCES

[1] Quercy, A. (2025). Db Minor - Research on Harmony - Variations 9 - Catalogue Raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0901.html>

[2] Quercy, A. (2025). ORCID <https://orcid.org/0009-0000-2662-7790>

[3] Quercy, A. (2026). Computational Image Analysis Standard. <https://ideamorphism.org/en/measurements/2025/09/ids-cmp-2025-computational-image-analysis-standard-5dq9.html>

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

99241705d565610768fe15b368609493ef77ecb9ca23487474d16dcd702e15db

Licensed under Creative Commons Attribution 4.0 International (CC BY 4.0)

Artist	Arnaud Quercy
Date	2025
Collection	Harmonic Crossing
Certificate	20251123-0100
Asset code	AQC0901
Identifier	NAN-COL000054
Version	1
Published	2025-12-11

ISSN: applied for – U.S. ISSN Center, Library of Congress

© 2026 Ideamorphic Studies

Published by Art Quam Anima Publishing New York,
an assumed name of AQA Publishing LLC

c/o Northwest Registered Agent, 418 Broadway Ste N
Albany, NY 12207, USA
+1 917-764-5470

NY DOS ID 7624376 · Assumed Name ID 7658709

publishing.artquamanima.com

Last updated: 2026-09-15

Persistent URI: <https://ideamorphism.org/en/nanopubs/2025/12/AQC0901-computational-image-analysis-aqc0901.pdf>