

Nanopublication – Computational Image Analysis –
AQC0530

by Arnaud Quercy · D Major9 - Research on Harmony - Variation 10 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0530

Computational image analysis [3] of artwork D Major9 - Research [1] on Harmony - Variation 10 (AQC0530) [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]: 2032x2709 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E7E5DF	27.3	white	white
2		D9D5CE	15.9	white	lightgray
3		BFA385	10.3	orange	rosybrown
4		CBE7A3	9.5	orange	tan
5		716F6D	8.0	gray	dimgray
6		996848	7.0	orange	burnt sienna
7		AD8868	6.6	orange	ochre
8		92918E	5.7	gray	gray
9		4A4747	5.2	gray	darkslategray
10		B08337	4.5	yellow-orange	peru
11		9CB2B6	0.3	blue-green	steel gray [Accent]

Color Families:

Family	%
white	43.2
orange	33.4
gray	18.9
yellow-orange	4.5
blue-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
9CB2B6	blue-green	steel gray	8.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.194
Mean Local Roughness	0.028
Roughness Uniformity	0.029
Edge Density	0.144
Mean Gradient Magnitude	0.216
Gradient Variance	0.083
Gradient Smoothness	0.0
Directional Coherence	0.013
Pattern Complexity	0.132
Pattern Repetition	1.0
Detail Frequency Ratio	0.668
Spatial Variation	0.106
Texture Consistency	0.746

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.693
Brightness Variance	0.194
Brightness Uniformity	0.72
Brightness Skewness	-0.523
Brightness Entropy	7.083
Rms Contrast	0.194
Michelson Contrast	0.984
Weber Contrast	0.528
Mean Local Contrast	0.029
Contrast Uniformity	0.0
Dynamic Range	0.992
Effective Dynamic Range	0.565
Shadow Percentage	4.411
Midtone Percentage	37.97
Highlight Percentage	57.619
Shadow Clipping	0.0
Highlight Clipping	0.004
Tonal Balance	0.0
Fine Contrast	0.015
Medium Contrast	0.036
Coarse Contrast	0.047
Multiscale Contrast Ratio	0.319
Edge Contrast	0.216
Contrast Clustering	0.254

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.739
Color Clustering	0.835
Color Transition Smoothness	0.459
Transition Uniformity	0.478
Sharp Transition Ratio	0.1
Transition Directionality	0.017
Mean Saturation	0.172
Saturation Variance	0.04
Low Saturation Ratio	0.772
Medium Saturation Ratio	0.207
High Saturation Ratio	0.021
Saturation Clustering	1.0
Hue Concentration	0.992
Complementary Balance	0.0
Analogous Dominance	0.999
Temperature Bias	0.999

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). D Major9 - Research on Harmony - Variation 10 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0530.html>

[2] Quercy, A. (2024). D Major9 - Research on Harmony - Variation 10 - Gallery. https://artquamanima.com/en/art-works/2024/01/d-major9-research-on-harmony-variation-10_5yc.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

D Major9 chord

synesthetic mapping

chromesthetic translation

acrylic on paper

geometric color composition

circle of fifths

harmonic color relationships

Synesthetic Explorations

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

ace45c37b5f6b89e9e69fc9be65dd0398f4234b877f13fddf43411582d92c53f

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Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20240220-0026
Asset code	AQC0530
Identifier	NAN-COL000405
Version	1
Published	2026-02-03

ISSN: [pending – Library of Congress]

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Published by Art Quam Anima Publishing New York,
an imprint of AQA PUBLISHING LLC

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

publishing.artquamanima.com

Last updated: 2026-06-03

Persistent URI: <https://multimodal.institute/en/nanopubs/2026/02/AQC0530-computational-image-analysis-aqc0530.pdf>