

Nanopublication – Computational Image Analysis - AQC0502

by Arnaud Quercy · Lydian Dance - Modal Composition No 2 · 2023

Lydian Dance - Modal Composition No 2

CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0502

Computational image analysis [3] of artwork Lydian [1] Dance - Modal Composition No 2 (AQC0502) [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]: 1638x2048 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		CAB19E	16.1	orange	tan
2		BA998F	12.0	red-orange	rosybrown
3		717170	12.0	gray	dimgray
4		E1DACE	11.7	yellow-orange	gainsboro
5		D3C7B3	10.5	yellow-orange	silver
6		36302D	9.9	gray	darkslategray
7		B38C56	8.9	yellow-orange	peru
8		AE837D	8.1	red-orange	gray
9		76322A	8.1	red-orange	russet
10		4B494A	2.5	gray	darkslategrey

Color Families:

Family	%
yellow-orange	31.2
red-orange	28.3
gray	24.4
orange	16.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.211
Mean Local Roughness	0.014
Roughness Uniformity	0.02
Edge Density	0.037
Mean Gradient Magnitude	0.096
Gradient Variance	0.031
Gradient Smoothness	0.0
Directional Coherence	0.146
Pattern Complexity	0.114
Pattern Repetition	1.0
Detail Frequency Ratio	0.628
Spatial Variation	0.095
Texture Consistency	0.625

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.575
Brightness Variance	0.211
Brightness Uniformity	0.633
Brightness Skewness	-0.457
Brightness Entropy	7.344
Rms Contrast	0.211
Michelson Contrast	1.0
Weber Contrast	0.723
Mean Local Contrast	0.013
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.667
Shadow Percentage	19.651
Midtone Percentage	40.074
Highlight Percentage	40.275
Shadow Clipping	0.0
Highlight Clipping	0.003
Tonal Balance	0.115
Fine Contrast	0.008
Medium Contrast	0.017
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.096
Contrast Clustering	0.375

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.71
Color Clustering	0.828
Color Transition Smoothness	0.75
Transition Uniformity	0.797
Sharp Transition Ratio	0.1
Transition Directionality	0.144
Mean Saturation	0.239
Saturation Variance	0.033
Low Saturation Ratio	0.758
Medium Saturation Ratio	0.222
High Saturation Ratio	0.02
Saturation Clustering	1.0
Hue Concentration	0.963
Complementary Balance	0.001
Analogous Dominance	0.998
Temperature Bias	0.997

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 (2023). Lydian Dance - Modal Composition No 2 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0502.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2023/01/lydian-dance-modal-composition-no-2_5ng.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

Lydian mode

chromesthetic mapping

modal composition

synesthetic art

acrylic painting

color harmony

musical intervals

Synesthetic Explorations

contemporary abstract

modal theory

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

8aa8c4f3cc734d9d4fa679f12c17ed229c9029642e448bf6e6882f8469f50569

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

Artist	Arnaud Quercy
Date	2023
Collection	Synesthetic Explorations
Certificate	20231231-0089
Asset code	AQC0502
Identifier	NAN-COL000430
Version	1
Published	2026-02-03

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/AQC0502-computational-image-analysis-aqc0502.pdf>