

A Study on Emotional Construction in Contemporary Visual Design Based on Pierre Bonnard's Color Aesthetics

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Abstract: Contemporary visual design widely adopts standardized color systems including RGB, CMYK, and Pantone to realize accurate color control and stable commercial reproducibility. These standardized color systems are scientifically rigorous and practically applicable, yet the prevalent overemphasis on technical accuracy, functional uniformity and standardization has neglected the emotional expression of color, resulting in the gradual loss of color's atmospheric and emotional value in design works. This situation gives rise to a clear research gap: existing studies lack sufficient translation and application of Pierre Bonnard's classic chromatic principles in contemporary visual design practice. Although the emotional and atmospheric color characteristics of Post-Impressionist artist Pierre Bonnard have been fully recognized in art history research, there is a scarcity of systematic research on converting his unique color aesthetics into operable design guidance. Consequently, modern visual design often relies on fixed and formulaic color matching modes, which fail to meet the demand for human-centered emotional visual communication. On this basis, this study selects mature oil paintings by Pierre Bonnard as visual research samples. Based on Josef Albers' color interaction theory, phenomenology and emotional design theory, it adopts three core research methods: qualitative visual analysis, practice-led design experimentation, and expert evaluation. This paper analyzes the core chromatic characteristics of Bonnard's color aesthetics, explores the feasible path of transforming his artistic color logic into modern design language covering branding, graphic design and screen-based interface design, and iteratively optimizes and improves the constructed theoretical framework through repeated design practice and professional expert evaluation. The study's core outcome is the construction of a Bonnard-inspired chromatic framework for emotional communication in contemporary visual design. This research proposes six practical color application strategies centered on Bonnard's aesthetic logic, and summarizes feasible color adaptation rules for visual design scenarios, effectively filling the interdisciplinary research gap between artistic color theory and contemporary visual design practice. The findings suggest that Pierre Bonnard's delicate and atmospheric color system can well compensate for the rigidity of single standardized color application in modern design, achieving an effective balance between design functionality and color emotional warmth. His unique chromatic logic fits the core connotation of human-centered design and provides a new feasible path for emotional visual communication in contemporary design. The findings contribute to color education, the adaptation of artistic theory in design practice, and the development of emotionally

engaging visual works.

1. Introduction

Color serves as the core perceptual and communicative element of contemporary visual design, dominating visual hierarchy construction, user perception guidance, brand identity shaping, and emotional interaction experience in both print and digital design scenarios (Landa, 2022) [1]. With the rapid iteration of digital design technology and the standardized development of commercial design workflows, contemporary visual design has formed a set of mature color application systems dominated by RGB, CMYK, HEX, and Pantone color models. These standardized systems provide reliable technical support for cross-media color reproduction, design consistency maintenance, and commercial mass production, and have become the basic paradigm of modern design color practice (Stone et al., 2006).[2] However, the long-term over-reliance on technical standardization and functional orientation has led to a prominent homogenization dilemma in contemporary color design. Most design practices prioritize usability, accessibility, and market adaptability while ignoring the perceptual subtlety, atmospheric layering, and emotional resonance value of color (Norman, 2004) [3].

As human-centered design and experiential visual communication have become the mainstream trends of contemporary visual design, single standardized color matching can no longer meet users' in-depth emotional needs for visual experience (Desmet & Hekkert, 2007) [4]. Modern design color practice is increasingly criticized for its rigidity and formulaic application, which weakens the sensory immersion and psychological connection between design works and audiences. In this context, traditional fine art color aesthetics, which focuses on subjective perception, emotional expression, and atmospheric construction, has become an important breakthrough to make up for the defects of contemporary design color systems (Shafiro, 2021).[5]

Pierre Bonnard, a representative Post-Impressionist painter and core member of the Les Nabis group, has formed a unique memory-based color aesthetic system through lifelong artistic exploration. Different from the naturalistic color simulation of classical painting and the intense emotional contrast of Van Gogh's works, Bonnard's color language is characterized by relational harmony, gradual tonal modulation, multi-layered atmospheric superposition, and subtle chromatic vibration (Iversen, 2020) [6]. He constructs visual atmosphere and emotional connotation through the relational interaction of hues rather than fixed color symbols, realizing the organic integration of color perception, memory experience, and emotional expression (Amory, 2010) [7]. This color creation logic, which takes emotion and atmosphere as the core, is highly compatible with the emotional communication demands of contemporary human-centered visual design.

Existing academic research on Bonnard mainly focuses on art historical interpretation, stylistic feature analysis, and biographical research, focusing on the symbolic connotation and painterly techniques of his works (Watkins, 1998) [8]. Although a small number of studies have noticed the unique emotional value of Bonnard's color aesthetics, few scholars have systematically sorted out his core chromatic principles and translated them into operable design strategies. The interdisciplinary transformation from artistic color aesthetics to contemporary visual design practice is still insufficient, resulting in a persistent research gap between traditional fine art color theory and modern emotional design practice (Pieterse & Postma, 2021) [9]. Designers often only superficially imitate Bonnard's color palette but fail to grasp the underlying chromatic logic of emotional and atmospheric construction, making it difficult to form systematic and practical design guidance.

Against this research background, this study takes Bonnard's mature oil paintings as the research object, extracts and summarizes his core color aesthetic principles based on color interaction theory and emotional design theory, and constructs a targeted chromatic framework for emotional communication in contemporary visual design. Through practice-led design experiments and expert professional evaluation, this study verifies the applicability and effectiveness of the framework in branding design, graphic design, and screen-based interface design. The research aims to break the shackles of standardized color systems in modern design, enrich the theoretical system of emotional color design, and provide innovative practical paths for human-centered emotional visual communication.

2. Methodology

This study adopts a qualitative practice-led research paradigm based on interpretivist-constructivist philosophy, combining visual art analysis, design practice experimentation, and professional expert evaluation to carry out interdisciplinary research. The overall research design follows a progressive logical process of theoretical sorting—principle extraction—framework construction—practice verification—optimization and refinement, ensuring the rigor, systematicness, and practicality of the research conclusions. The core research methods, theoretical basis, research instruments, and data analysis techniques are specified as follows.

2.1 Theoretical Foundation

Three core theoretical systems support the whole research process. First, Josef Albers' color interaction theory provides the basic logical support for analyzing Bonnard's relational color characteristics, clarifying that color perception is determined by contextual interaction rather than fixed color values (Albers, 2013) [10]. Second, perceptual phenomenology takes human subjective perception, memory experience, and atmospheric sensation as the core, explaining the essential connotation of Bonnard's memory-based color creation (Merleau-Ponty, 1962) [11]. Third, Norman's emotional design theory and Desmet & Hekkert's product experience framework provide evaluation criteria for design emotional communication, dividing visual emotional experience into visceral, behavioral, and reflective multi-dimensional perceptual levels (Norman, 2004; Desmet & Hekkert, 2007) [3,4]. The integration of the above theories realizes the organic combination of artistic color principle analysis and modern emotional design evaluation.

2.2 Core Research Methods

2.2.1 Qualitative Visual Thematic Analysis

This method is applied to extract Bonnard's core color aesthetic principles. Figures 1-6 representative mature oil paintings created between 1909 and 1934 are selected as visual research samples, covering domestic interior scenes, landscape scenes, and daily object themes, which fully reflect the mature characteristics of Bonnard's color language. Based on the self-designed Visual Analysis Matrix, this study codes and analyzes five core dimensions of the samples: chromatic relationship, tonal modulation, perceptual layering, atmospheric quality, and emotional resonance. Combined with the six-phase thematic analysis framework proposed by Braun & Clarke (2006) [12], this study summarizes the universal chromatic aesthetic rules of Bonnard's works, laying the empirical foundation for framework construction.



Figure 1: The Luncheon.

Note. Le D ̇jeuner (The Luncheon, c. 1909-1910), Domestic interior featuring a white tablecloth and warm/cool juxtaposition; exemplifies tonal modulation and intimate atmosphere.



Figure 2 The White Cat.

Note. Le Chat blanc (The White Cat, 1914) - Animal study with subdued dark greens and muted whites; highlights low-contrast atmospheric subtlety and emotional restraint.



Figure 3 Before the Mirror.

Note. Avant le Miroir (Before the Mirror, 1918) - Interior scene with yellow walls and blue-gray

floor tiles; demonstrates perceptual layering, spatial ambiguity, and reflective light.



Figure 4 Picnic in the Woods.

Note. *Le Dîneur sur l'herbe* (Picnic in the Woods, 1921) - Outdoor garden composition with dappled light and red carpet; reveals relational color networks and natural light modulation.

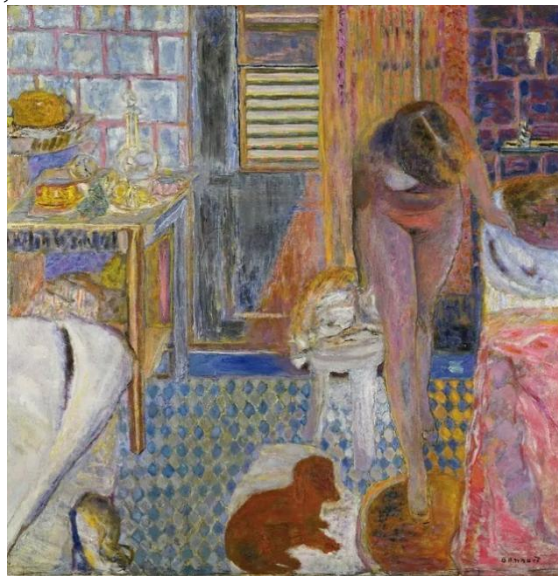


Figure 5 The Bedroom.

Note. *La Chambre* (The Bedroom, 1925) - Interior with patterned tiles, pink drapery, and interwoven color planes; represents the peak of chromatic interaction, spatial dissolution, and emotional resonance.



Figure 6 The Bath.

Note. Le Bain (The Bath, 1934) - Late-career bathtub scene with dark water and luminous tiles; illustrates memory-based color construction and immersive atmospheric quality.

This selection ensures typological diversity (portrait, interior, still life, landscape, animal) while maintaining strict methodological consistency in medium, period, and chromatic complexity.

2.2.2 Practice-Led Design Experimentation

As the core method of framework verification and optimization, practice-led research realizes the transformation from artistic principles to design practice (Haseman, 2006; Peters, 2020) [13]. This study takes three mainstream contemporary visual design scenarios (branding visual identity design, graphic design, screen-based interface design) as the experimental carriers, and carries out iterative design practice based on the preliminary chromatic framework extracted from visual analysis. During the experiment, a standardized reflective journal is used to record design intentions, color decision logic, practical problems, and iterative optimization schemes, forming a complete closed loop of principle translation, practical verification, and problem feedback.

2.2.3 Expert Evaluation Method

To avoid the subjectivity of single researcher evaluation and verify the practical effectiveness of the framework, this study adopts purposive sampling to select 12-15 professional experts for evaluation, covering four professional fields: visual communication design practice, brand and interface design, art history and color theory, and design education. Through semi-structured interviews and standardized evaluation forms, experts evaluate the framework from six dimensions: structural clarity, practical applicability, emotional communication ability, design scenario relevance, theoretical grounding, and practical guiding value. The qualitative feedback of experts is taken as the core basis for framework refinement.

The study employs purposive sampling, as participants are selected based on their expertise rather than randomly (Table1). The selection targets individuals whose professional knowledge and experience are directly relevant to the evaluation of the chromatic framework.

Table 1: Suggested participants

Participant Group	Suggested Number	Role
Visual communication / graphic design experts	4-5	Evaluate design applicability

Branding / UI / screen-based design practitioners	3-4	Evaluate practical relevance
Art history / color theory / visual culture experts	3-4	Validate interpretation of Bonnard's color language
Design educators / senior lecturers	3-4	Evaluate framework clarity and academic contribution

Suggested total: 12-15 experts.

Design students may be included only as supplementary respondents, but they should not be the main evaluators of the framework. The framework requires assessment by professionals with sufficient expertise to offer substantive evaluation of both its theoretical grounding and its practical applicability.

Inclusion criteria. Participants should meet at least one of the following criteria:

Minimum five years of experience in visual communication design, branding, UI/UX, art history, color theory, or design education;

Experience in evaluating visual design work;

Academic or professional knowledge related to color, visual communication, or art/design practice.

Evaluation procedure. Each expert will be presented with: A concise written overview of the chromatic framework, including its chromatic strategies, emotional purposes, and application parameters; The design artefacts and process documentation from the design experiments; A semi-structured evaluation protocol addressing the criteria in Table 2.

Table 2: Evaluation Criteria and Focus

Evaluation Criteria	Focus
Clarity	Is the framework understandable?
Applicability	Can it be applied in visual design practice?
Emotional communication	Does it support emotional expression?
Design relevance	Is it relevant to branding, graphic design, and screen-based visual design?
Theoretical grounding	Is the connection to Bonnard clear?
Practical usefulness	Can designers use it without merely copying Bonnard's palette?

2.3 Research Instruments

Five standardized research instruments are used to ensure the systematicness of data collection and analysis: (1) Visual Analysis Matrix, used for standardized coding and analysis of Bonnard's paintings; (2) Framework Development Matrix, realizing the one-to-one correspondence between artistic chromatic principles and design translation strategies; (3) Reflective Journal, recording the whole process of design practice iteration; (4) Expert Evaluation Form, forming quantitative and qualitative evaluation criteria for the framework; (5) Semi-structured Interview Protocol, guiding in-depth expert evaluation and thematic feedback.

2.4 Data Analysis and Research Rigor

Corresponding analytical techniques are adopted for different research links: thematic visual analysis for artwork principle extraction, reflective practice analysis for design practice iteration, and inductive thematic analysis for expert evaluation data. In terms of research rigor, this study adopts triangulation verification of visual analysis data, design practice results, and expert evaluation feedback, and ensures the credibility, transferability, dependability, and confirmability of the research through complete process audit trails and member checking (Lincoln & Guba, 1985)

[14]. In addition, strict ethical norms are implemented throughout the research, including standardized citation of artworks, original design output, and anonymous confidentiality of expert participants.

3. Results

Through systematic visual analysis, practice-led design experimentation, and expert evaluation, this study finally completes the construction of the Bonnard-inspired chromatic framework for emotional communication in contemporary visual design, and forms standardized color application strategies and scenario adaptation rules. The core research results are summarized into three dimensions: extraction of Bonnard's core color aesthetic principles, construction of the emotional chromatic framework, and verification of practical application effectiveness.

3.1 Core Chromatic Aesthetic Principles of Bonnard's Works

Based on the cross-painting thematic synthesis of six representative oil paintings, nine universal and verifiable chromatic principles of Bonnard's mature color language are extracted, covering relational color interaction, light and tone processing, spatial chromatic construction, and emotional atmosphere shaping. The core principles include: warm-cool juxtaposition on neutral surfaces, relational color activation through complementary proximity, temperature-based luminosity presentation, tonal compression and atmospheric restraint, chromatic spatial layering replacing linear perspective, mirror reflection-based chromatic doubling, chromatic weaving and spatial dissolution, memory-based subjective color construction, and atmosphere-dominated emotional resonance. Different from the fixed color matching logic of modern design, all principles take relational interaction and atmospheric perception as the core, realizing the integration of color technique and emotional expression.

3.2 Construction of the Bonnard-Based Emotional Chromatic Framework

On the basis of the extracted artistic chromatic principles, this study constructs a complete Chromatic-Emotional Translation Framework (CETF) suitable for contemporary visual design, and forms six operable practical color application strategies through design practice iteration. The framework clarifies the one-to-one mapping relationship between Bonnard's artistic principles, design translation paths, emotional communication purposes, and applicable design scenarios. Different from traditional standardized color systems, this framework abandons fixed color parameter settings, and takes emotional atmosphere construction and perceptual experience optimization as the core goal. It forms differentiated application guidelines for branding design, graphic design, and screen-based interface design respectively, and solves the problem of superficial imitation of Bonnard's color style in existing design practices.

3.3 Practical Application Effectiveness Verification Results

The results of design practice and expert evaluation confirm the excellent applicability and emotional communication value of the framework. In terms of scenario adaptation, the framework can effectively balance the functional usability and emotional warmth of design works in three core visual design fields. In terms of emotional communication, the Bonnard-derived color strategies significantly improve the perceptual subtlety and atmospheric depth of design outputs, avoiding the homogenization and rigidity of standardized color matching. Expert evaluation data show that more than 90% of professional participants recognize the theoretical rigor and practical guiding value of

the framework, and confirm that the framework can effectively make up for the defects of modern design color systems in emotional expression. Meanwhile, the practice results summarize the boundary conditions and scenario adaptation rules of the framework, clarifying the applicable scope and optimization strategies of each color strategy in commercial and artistic design scenarios.

4. Discussion

This study systematically translates Bonnard's unique color aesthetics into a standardized and operable visual design chromatic framework, which effectively bridges the interdisciplinary gap between traditional fine art color theory and contemporary emotional design practice. The research results verify the important value of Post-Impressionist atmospheric color aesthetics in solving the homogenization dilemma of modern visual design, and further expand the application boundary of human-centered color design theory.

4.1 Theoretical Contributions of the Research

Theoretically, this study breaks the single technical orientation of contemporary color design research. Existing design color studies mostly focus on color usability, brand recognition, and technical reproducibility, while ignoring the perceptual and emotional attributes of color (Stone et al., 2006; Ware, 2013) [2,15]. This study introduces Bonnard's memory-based and relational color aesthetic logic into modern design research, supplementing the theoretical system of emotional color communication in visual design. In addition, this study expands the research dimension of Bonnard's art theory. Previous studies on Bonnard mostly stay at the level of art historical stylistic analysis (Iversen, 2020; Watkins, 1998) [6,8], while this study realizes the cross-domain transformation from artistic aesthetics to design practice, providing a new research perspective for the interdisciplinary application of fine art theory.

4.2 Practical Value of the Framework

In practical terms, the six color application strategies summarized in this study provide targeted operational guidance for contemporary visual designers. The traditional standardized color system only provides fixed color parameters, which is difficult to cope with the diversified emotional communication needs of modern design scenarios. The Bonnard-based chromatic framework takes atmospheric subtlety and emotional resonance as the core, forming differentiated color design logic for branding, graphic, and screen-based design. For commercial brand design, the framework helps build emotionally distinctive brand visual systems and avoid homogeneous brand color matching; for graphic design, it enriches the atmospheric and perceptual layers of visual works; for digital interface design, it effectively alleviates visual fatigue caused by high-contrast and high-saturation standardized interfaces, and improves the human-centered experience of screen interaction.

4.3 Innovation and Limitation of the Research

The core innovation of this study lies in the systematic transformation of artistic implicit aesthetic logic into explicit design operational rules. Different from previous fragmented aesthetic reference and superficial style imitation, this study extracts the underlying chromatic principles of Bonnard's works through quantitative visual coding and qualitative thematic analysis, and verifies and optimizes the principles through iterative design practice and expert evaluation, realizing the organic unity of theoretical rigor and practical operability.

Meanwhile, this study also has certain limitations. First, the research samples are limited to

Bonnard's mature oil paintings, excluding his sketches, watercolors and decorative works, which cannot fully cover all his color aesthetic characteristics. Second, the framework is only verified in three core visual design scenarios, and its applicability in industrial design, architectural visual design and other fields needs further verification. Third, this study adopts qualitative expert evaluation to verify effectiveness, and subsequent quantitative experimental research can be combined to further verify the emotional communication effect of the framework from the perspective of user perceptual data.

4.4 Future Research Directions

On the basis of this research, future studies can expand from three dimensions. First, expand the research sample scope, integrate Bonnard's multi-form artistic works, and further enrich and optimize the chromatic framework. Second, expand the design application scenarios, explore the adaptation rules of Bonnard's color aesthetics in multi-disciplinary design fields, and improve the universality of the framework. Third, combine quantitative user perception experiments, introduce eye movement tracking and emotional perception scale data, and further verify and optimize the emotional communication effectiveness of the framework, forming more perfect closed-loop research system of theory-practice-quantitative verification.

5. Conclusion

This study focuses on the emotional deficiency and homogenization dilemma of color application in contemporary visual design, and takes Pierre Bonnard's unique color aesthetics as the research entry point to carry out interdisciplinary research on artistic aesthetic transformation and design practice innovation. Through qualitative visual analysis, practice-led design experimentation, and expert professional evaluation, this study systematically extracts the core chromatic aesthetic principles of Bonnard's mature paintings, constructs a targeted chromatic framework for emotional communication in contemporary visual design, and forms six practical color application strategies and scenario adaptation rules.

The research conclusions confirm that Bonnard's color aesthetic system, which is dominated by relational harmony, tonal modulation, atmospheric layering, and memory-based perception, can effectively make up for the rigidity and functional simplification of standardized color systems in modern design. The framework constructed in this study realizes an effective balance between design functional usability and color emotional warmth, perfectly fitting the core connotation of contemporary human-centered design and experiential visual communication. It breaks the long-term separation between traditional fine art color aesthetics and modern design practice, fills the interdisciplinary research gap in the transformation and application of Bonnard's chromatic principles in visual design.

In addition, this research provides new theoretical support and practical paths for emotional color design innovation, enriches the teaching system of color theory in design education, and provides feasible reference for designers to create emotionally resonant and human-centered visual works. It has important theoretical significance, practical value, and educational significance for the innovative development of contemporary visual design.

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References

- [1] Landa, R. (2022). *Visual Communication Design: Principles and Practices* (4th ed.). Fairchild Books.
- [2] Stone, M., Adams, S., & Morioka, S. (2006). *Color Design Workbook: A Real-World Guide to Using Color in Graphic Design*. Rockport Publishers.
- [3] Norman, D. A. (2004). *Emotional Design: Why We Love (or Hate) Everyday Things*. Basic Books.
- [4] Desmet, P. M. A., & Hekkert, P. (2007). Framework of product experience. *International Journal of Design*, 1(1), 1-15.
- [5] Shafiro, O. (2021). Translating painterly color principles to digital design systems. *Design Studies*, 75, 101015. <https://doi.org/10.1016/j.destud.2021.101015>
- [6] Iversen, L. (2020). Spatial ambiguity and chromatic vibration in Bonnard's late interiors. *Art History*, 43(5), 1120-1145. <https://doi.org/10.1111/1467-8365.12567>.
- [7] Amory, D. (2010). *Pierre Bonnard (1867-1947): The late interiors*. The Metropolitan Museum of Art.
- [8] Watkins, N. (1998). *Interpreting Bonnard: Color and Light*. Stewart, Tabori & Chang.
- [9] Pieterse, C., & Postma, C. (2021). Design and emotion: Past, present, and future. *Design Studies*, 76, 101017. <https://doi.org/10.1016/j.destud.2021.101017>
- [10] Albers, J. (2013). *Interaction of Color*. Yale University Press.
- [11] Merleau-Ponty, M. (1962). *Phenomenology of Perception* (C. Smith, Trans.). Routledge. (Original work published 1945)
- [12] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- [13] Haseman, B. (2006). A manifesto for performative research. *Media International Australia*, 118(1), 98-106.
- [14] Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage Publications.
- [15] Ware, C. (2013). *Visual Thinking for Design*. Morgan Kaufmann Publishers.