The Collecting Logic of NFT Art: Reconstructing Aesthetic Value in the Age of Digital Ownership

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Abstract

Non-fungible tokens (NFTs), as a blockchain-based mechanism for certifying digital ownership, have since the market explosion of 2021 profoundly restructured the construction of scarcity, value authentication, and collecting practice in digital art, posing systematic challenges to traditional aesthetic value judgment. Drawing on Walter Benjamin's theory of the "aura," Pierre Bourdieu's cultural capital theory, Nadini et al.'s (2021) quantitative analysis of 4.7 million NFT market transactions, and Belk et al.'s (2022) consumer research on metaverse property, this paper examines the value reconstruction mechanisms of NFT art collecting across three dimensions: (1) the artificial construction of technical scarcity — how blockchain re-aurates the digital copy through cryptographic means; (2) the de-institutionalization of value authentication — how algorithms, communities, and on-chain records challenge the traditional authority of curators, auction houses, and critics; and (3) the financialization paradox of collecting practice — the structural tension between aesthetic value and speculative capital. The study finds that NFT collecting logic does not simply replicate traditional art market value judgment, but generates a new value system replacing "material authenticity" with "technical authenticity," "institutional authorization" with "community consensus," and "physical scarcity" with "algorithmic scarcity." This research carries direct reference value for constructing contemporary digital art criticism discourse and refining art market regulatory frameworks.

Keywords: *NFT art, digital ownership, aura, cultural capital, value reconstruction, art market*

1 Introduction: A Token and a Sixty-Nine-Million-Dollar Question

On March 11, 2021, digital artist Beeple’s Mike Winkelmann work Everydays: The First 5000 Days was sold at Christie’s for US$69.34 million, becoming one of the most expensive digital artworks in history and the first purely digital work ever sold at auction in NFT form[1]. This event quickly swept across global media and triggered a shared shock across aesthetics, markets, and technology: how could a digital file that can be perfectly and infinitely copied, and that the buyer can never physically possess, acquire a monetary value comparable to that of major works in traditional art?

The answer to this question involves the logic through which blockchain technology constructs ownership, the philosophy of scarcity in the age of the digital economy, and the rapidly transforming value system of art collection. NFT, or Non-Fungible Token, is a blockchain-based digital certificate technology[2]. At the technical level, it grants each digital file a unique and tamper-proof ownership record, thereby theoretically addressing a core paradox that has long confronted digital artworks: digital files are naturally capable of perfect reproduction at virtually no cost, while the value system of the traditional art market relies heavily on the material uniqueness of the original work. The emergence of NFTs does not end this paradox; rather, it redefines it through technological means.

Taking Walter Benjamin’s theory of “aura” and Bourdieu’s 1986 theory of cultural capital as its dual theoretical axes, and drawing on Nadini et al.’s 2021 large-scale quantitative study of the global NFT market, as well as Belk et al.’s 2022 consumer research on concepts of property in the metaverse, this paper systematically examines the logic of value reconstruction in NFT art collecting from three dimensions: the construction mechanism of technical scarcity, the decentralization of value-authenticating authority, and the structural tension between aesthetic value and financial capital[3]. The central argument of this paper is that NFT collecting is replacing material authenticity with technological authenticity, institutional authorization with community consensus, and physical scarcity with algorithmic scarcity, thereby constructing a new system of connoisseurial value that is internally coherent yet filled with deep contradictions.

2 Theoretical Framework: The Technical Reproduction of Aura

2.1 Benjamin's Theory of Aura and Its Digital Paradox

In his foundational essay of 1935/1936, Benjamin defined the "aura" of an artwork as its "here and now" quality: the unrepeatable authenticity possessed by an artwork as a unique existence situated in a specific time and place. Mechanical reproduction technology, through the mass production of copies, removes the artwork from its traditional and ritual context, leading to the decay of aura. Benjamin regarded this process as emancipatory: art moved away from elite cultic ritual and toward the political practice of the masses[4]. Yet the decay of aura described by Benjamin reaches an extreme in the digital age: the reproduction of digital files is not only mass-based, but also costless, lossless, and instantaneous.

In this context, digital art has long faced a vacuum of value. NFT technology attempts to fill this vacuum technically through cryptography: by inscribing ownership records onto an immutable blockchain, NFTs create a form of technical aura[5]. This aura does not derive from the material uniqueness of a physical original, but from the non-reproducibility of an ownership certificate on the blockchain. This technical aura is fundamentally different, at the philosophical level, from the material aura described by Benjamin. The former is an artificially designed algorithmic constraint that can be technically expanded or modified at any time, whereas the latter is the natural product of irreducible historical accumulation and material temporality. At the level of market function, however, both effectively serve the social construction of scarcity: price formation depends on collective belief in scarcity, whether that scarcity is material or algorithmic.

2.2 Bourdieu's Cultural Capital and the Field of NFT Collecting

Bourdieu (1986) defines cultural capital as the knowledge, skills, and qualifications accumulated by individuals within a cultural field[6]. It may appear in institutionalized forms, such as degrees and certificates; objectified forms, such as art collections; and embodied forms, such as aesthetic taste, and it may be converted into social capital and economic capital. The field of traditional art collecting takes institutional authority, including museums, auction houses, and critics, as the principal distributor of cultural capital. Collectors accumulate discursive capital in the art field through their relationships with these institutions.

The rise of the NFT art market has constructed a new field that is partly independent of traditional art institutions, and the logic of cultural-capital accumulation within it has undergone a significant shift. The public visibility of on-chain collecting records turns a collector's collecting history into a transparent social signal. Discord communities and Twitter influence replace gallery interpersonal networks. Knowledge of a specific NFT project's roadmap and technological innovations replaces traditional art-historical knowledge as a qualification for entry into the field. This new field is not without hierarchy; rather, it replaces traditional cultural elite capital with crypto-native knowledge and technical capital, thereby restructuring the hierarchy of capital accumulation within the field. This stands in sharp contrast to Velthuis's 2005 research on gallery pricing scripts: in the NFT market, pricing scripts are dominated by algorithms, community hype, and on-chain liquidity, rather than institutional certification and critical discourse.

3 The Construction of Technical Scarcity: How NFTs Rebuild Digital Aura

The core technological contribution of NFTs is that they add a non-reproducible layer of ownership certification on top of digital files that can otherwise be infinitely copied. Through a smart contract, the NFT creator mints a token on the blockchain. This token contains a hash value pointing to the metadata of the digital work and records on-chain its unique identifier, creator address, and ownership history. Anyone can view, copy, or even download the digital image associated with the NFT, but the "ownership" recorded on-chain is unique in a cryptographic sense: it cannot be copied, forged, or transferred without authorization through the owner's private key.

Nadini et al.'s 2021 large-scale quantitative study of 4.7 million NFTs reveals that the main predictors of NFT prices include sales history, collector network centrality, and visual-feature similarity, rather than creator reputation or critical recognition in an art-historical context[4]. This finding indicates that the NFT market has already formed an independent mechanism of value assessment, one that overlaps far less with the value logic of the traditional art market than the public tends to assume. From the perspective of behavioral economics, Kahneman's 2011 dual-system theory can explain this phenomenon[7]: participants in the NFT market rely more heavily on System 1, that is, fast and intuitive judgments, such as community hype, project-roadmap promises, and upward price momentum, rather than System 2, that is, slow and analytical judgments based on art-historical knowledge and aesthetic evaluation. This cognitive mode is both the mechanism behind rapid price formation in the NFT market and the fundamental source of its extreme volatility.

4 The De-institutionalization of Value Authentication: From Expert Authority to Algorithms and Communities

4.1 The Chain of Institutional Authority in the Traditional Art Market

Value authentication in the traditional art market depends on a mutually reinforcing institutional chain: critics provide aesthetic evaluation, galleries establish primary-market reputation, auction houses set price anchors through public bidding, and museum collections confer historical legitimacy. Velthuis's 2005 in-depth interview study reveals that the core elements of gallery pricing scripts consist of a verifiable sequence of institutional validation: artists' exhibition records, critical reception, and the ownership histories of important collectors together form the basis of price expectations in the secondary market. The operating logic of this institutional chain embodies the path described by Bourdieu through which symbolic capital is converted into economic capital: the monetary value of an artwork is the monetized expression of its symbolic value, while symbolic value is endorsed by the institutional certification system[8].

4.2 The Three-Layered New Authority Structure of the NFT Market

In the NFT market, three alternative sources of authority have emerged, forming a value-authentication system that is de-institutionalized but by no means structureless, as shown in Table 1. First is the authority of algorithmic visibility: search-engine rankings, OpenSea recommendation algorithms, and social media popularity replace the discursive power of critics and become the primary determinants of an NFT artwork's initial exposure. Second is the authority of community consensus: the activity level of Discord communities, the number of holders, and the distribution of holders, meaning the degree of decentralization, become core indicators for assessing the sustainability of an NFT project's value. Third is the authority of on-chain history: permanent and publicly verifiable transaction records and ownership histories on the blockchain replace provenance documents and institutional authentication, becoming the technical guarantee of NFT authenticity.

Table 1. Systematic comparison of NFT art value authentication and traditional art market mechanisms

Dimension of Authority	Traditional Art Market	NFT Art Market	Axiological Implication
Authenticity authentication	Physical examination + provenance documents	Blockchain-based immutable records + minter's smart contract	Technological authenticity replaces material originality
Right to aesthetic evaluation	Discursive authority of critics / curators	Community consensus (Discord / Twitter popularity) + algorithmic visibility	De-elitization, yet with the formation of a new crypto-native elite
Price discovery	Auction-house / gallery negotiation	Real-time bidding on decentralized trading platforms such as OpenSea	Prices are transparent but highly volatile
Historical legitimacy	Museum collections / canonization in art history	On-chain transaction history + accumulated reputation of holders	On-chain time replaces institutional time
Copyright management	Legal contracts + copyright registration	Smart-contract coding, such as automatic royalty distribution	Rights become automated, but legal boundaries remain ambiguous

Note: This comparative framework synthesizes the research findings of Nadini et al. (2021), Belk et al. (2022), and Velthuis (2005). Specific market-platform conditions are subject to the official terms of each platform.

Belk et al. (2022) point out that NFTs[5], in the context of the metaverse, reconstruct the subjective experience of property and possession: digital ownership has not only financial significance, but also constructs a new mechanism of social identity through on-chain visibility. Holding a specific NFT becomes proof of membership in a crypto-native community, further blurring the boundary between collecting behavior and identity performance. This finding echoes Bourdieu's discussion of the objectified form of cultural capital, namely art collecting: NFT holding status becomes the objectified manifestation of a new form of cultural capital in on-chain space, even though the corresponding cultural field has undergone a fundamental structural transformation compared with the traditional art field.

5 The Financialization Paradox: When Aesthetic Value Encounters Speculative Capital

5.1 Mechanisms of Market Bubbles and Value Hollowing

After the explosive growth of the NFT market in 2021, with total transaction volume of approximately US$17.6 billion, the market underwent a significant correction in 2022, with the prices of several leading projects falling by more than 90%. McAndrew's 2024 global art market report shows that the share of NFT artworks in the overall art market displays cyclical characteristics highly correlated with the cryptocurrency market, rather than following the independent price cycle of the traditional art market. Boido and Aliano's 2023 financial analysis indicates that NFT price movements are highly correlated with overall sentiment in the cryptocurrency market, while their correlation with traditional art prices is extremely low. This quantitatively reveals that the main driving force of the NFT market is closer to that of speculative financial assets than aesthetic cultural goods. This finding forms a dialogue across four decades with the "floating crap game" quality of art investment described by Baumol in 1986: the random-walk characteristics of high-end traditional art prices reappear in the NFT market in an greatly amplified form, with even higher volatility and more fragile liquidity.

5.2 The Structural Tension Between Aesthetic Value and Speculative Logic

The erosion of aesthetic value by financialization is structural. When the primary motivation for purchasing NFTs is dominated by expectations of investment returns, aesthetic judgment degenerates into an ex post tool for rationalizing price signals, rather than remaining a genuine act of connoisseurship. Renneboog and Spaenjers's[9] 2013 empirical study of the traditional art market shows that even in a price-driven traditional art-investment context, the aesthetic characteristics of artworks, such as style and technical complexity, still exert a statistically significant independent influence on price. In the early price formation of the NFT market, however, the explanatory power of visual-aesthetic features is far lower than that of community hype and project narratives. This suggests that the aesthetic dimension of NFT collecting is being systematically diluted.

The smart-contract royalty mechanism is an important innovation through which NFTs protect artists' rights. In every secondary-market transaction, a certain percentage of the transaction amount, usually 5%–10%, can be automatically transferred to the creator's address, thereby technically realizing the resale royalty, or droit de suite, that the traditional art market has long failed to resolve. However, some trading platforms have begun to bypass or reduce royalty enforcement, placing the long-term sustainability of the royalty mechanism at institutional risk. This paradox once again reveals the fundamental tension between technological promise and market reality: blockchain technology can encode artists' rights at the level of code, but it cannot forcibly enforce those rights within a competitive market structure.

6 A Three-Dimensional Model for Reconstructing the Value System of NFT Collecting

Synthesizing the above analysis, this paper proposes a three-dimensional reconstruction model of the value system of NFT art collecting, as shown in Table 2. The model systematically presents the interactions among technical scarcity, de-institutionalized authentication, and financialization pressure, as well as the emancipatory potential and structural risks within each dimension.

Table2. Three-dimensional value reconstruction model of NFT art collecting

Dimension 1: Technical Scarcity	Dimension 2: De-institutionalized Authentication	Dimension 3: Financialization Pressure
Mechanism: blockchain-based certificate of unique ownershipTheoretical correspondence: Benjamin's theory of aura	Mechanism: algorithmic visibility + community consensusTheoretical correspondence: Bourdieu's field of cultural capital	Mechanism: correlation with cryptocurrency pricesTheoretical correspondence: Baumol's "floating crap game" theory
Emancipatory potential: the technical reconstruction of digital-native aura	Emancipatory potential: breaking institutional monopolies and empowering creators	Emancipatory potential: royalty automation and protection of resale rights
Structural risk: the artificial scalability of algorithmic scarcity	Structural risk: community elitization and filter bubbles	Structural risk: speculation-driven logic and the marginalization of aesthetic value
Core substitution thesis: "technological authenticity" replaces "material originality" | "community consensus" replaces "institutional authorization" | "algorithmic scarcity" replaces "physical scarcity"		

Note: This model synthesizes Nadini et al.'s (2021) quantitative market analysis, Belk et al.'s (2022) consumer research, and Velthuis's (2005) sociological study of art. Color coding: blue = technological dimension; indigo = social dimension; red = financial dimension.

7 A Bilateral Assessment of the Value System of Art Connoisseurship

7.1 The Real Potential of Aesthetic Liberation

The most substantively positive contribution of NFTs to the value system of art connoisseurship appears on two levels. First is the value-authentication infrastructure for digital art. Purely digital forms of creation, such as generative art, pixel art, and code art, which had long remained at the margins of the market, have been able to enter a tradable collecting system and obtain a value-authentication framework that they previously lacked. Nadini et al.'s (2021) data show that NFT market participants are far more geographically dispersed than those in the traditional art market, and that creators from Asia, Latin America, and Africa account for a significantly higher share of the NFT primary market than they do in the traditional gallery system. This suggests that NFTs have a certain democratizing effect on connoisseurship at the geographical level.

Second is the technical protection of creators' economic rights. When effectively enforced, the smart-contract royalty mechanism provides creators with a right to share in resale revenues that is absent from the traditional market, thereby improving artists' position in the secondary market at the institutional level. In theory, this technological innovation responds to the long-standing structural inequality in the relations of artistic production, although its actual effectiveness remains highly uncertain because it is constrained by competitive pressures in the market.

7.2 The Structural Risk of Eroding Aesthetic Value

However, the erosion of aesthetic value by financialization is also structural. When the primary motivation for purchasing NFTs is dominated by expectations of investment returns, aesthetic judgment degenerates into an ex post tool for rationalizing price signals, rather than remaining a genuine act of connoisseurship. A deeper risk lies in the possibility that price signals in the NFT market may in turn reshape the logic of artistic production. When certain visual features, such as strong color contrast or reproducible avatar formats, are shown to be correlated with high market prices, creators face structural pressure to abandon aesthetic exploration and pursue market-friendly formats instead.

Boido and Aliano's (2023) [10]empirical study finds that NFT prices, during both periods of market expansion and contraction, display an extremely high correlation with Bitcoin prices, with $r > 0.85$, while showing an extremely low correlation with traditional art auction data from the same period, with $r < 0.15$. This quantitative finding fundamentally suggests that, under the current market structure, NFTs have not yet formed an independent mechanism for discovering aesthetic value. Their prices primarily reflect the overall risk appetite of the cryptocurrency market, rather than the intrinsic aesthetic value of artworks.

8 Conclusion

The collecting logic of NFT art represents a genuine reconstruction of the value system, rather than merely the digital migration of traditional collecting practices. Through the artificial construction of technical scarcity, the decentralization of value-authenticating authority, and a new framework of meaning for digital ownership, NFTs have created a new system of connoisseurial value that is internally coherent. However, the analysis in this paper shows that the revolutionary potential of this new system is as significant as its structural contradictions.

Technological authenticity may indeed replace material originality at the logical level, but its foundation depends on collective belief in the stability of blockchain technology and the continuity of relevant community consensus, both of which face technological and social risks. As a de-institutionalized source of authority, community consensus dissolves old elites while also generating new crypto-native elite networks, whose inclusiveness and diversity still require empirical examination. Algorithmic scarcity is, in theory, an artificially imposed constraint that can be expanded without limit. The social construction of its scarcity depends heavily on the maintenance of market sentiment; once market sentiment reverses, its value foundation may collapse rapidly.

For art criticism and art education, the most important methodological task in the NFT era may not be to take sides in the false binary question of whether "NFTs are art or financial products." Rather, it is to develop the analytical ability to distinguish among three different phenomena: NFT works with genuine aesthetic innovation, speculative content packaged through technological frameworks, and the real gray zone that exists between the two. The cultivation of this analytical ability is precisely the new core task that art-connoisseurship education must urgently undertake in the digital age. The reconstruction of collecting logic ultimately calls for the reconstruction of connoisseurship theory.

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