

**CREATING WITH BLOCKCHAIN TECHNOLOGY: THE “PROVABLY RARE”
POSSIBILITIES OF CRYPTO ART**

by

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The following individuals certify that they have read, and recommend to the Faculty of Graduate and Postdoctoral Studies for acceptance, a thesis/dissertation entitled:

Creating with Blockchain Technology: The “Provably Rare” Possibilities of Crypto Art

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Abstract

My thesis examines crypto art from several different vantage points. This is a budding artistic phenomenon which, can be broadly defined as art that takes place on the blockchain (also called a distributed digital ledger). Investigating this movement can aid in illuminating alternative forms of contemporary artistic practice, the direction of the blockchain, and a better understanding of cryptocurrency.

Crypto art facilitates an efficient form of economic value creation for both artists and collectors, enabled by the blockchain's capacities around tracing provenance and authenticity as well as implementing mechanisms to ensure artists receive compensation at the point of sale and resale. These outcomes would not have been possible in a pre-blockchain world. However, many of the approaches and philosophies are shared between the makers and functions of crypto art and conceptual art. Several aspects of blockchain technology are "new," but the problems and questions that crypto art addresses, including its association with larger financial forces, have tremendous art historical precedent. Much of the modern art system is even built upon these connections, and paralleling this movement to conceptual art can help expose these affiliations. Looking at blockchain through the legacy of conceptual art also demonstrates the need for this technology and its capabilities, most notably, the built-in payment structure for artists.

With this in mind, the central questions in my thesis are: how has crypto art challenged the relationship to authorship, ownership, dematerialization and distribution that were fundamental to conceptual art? And what relevance does this have for blockchain technology today? In attempting to address these questions, this paper will argue that crypto art reveals and critiques

the framework of the art market. I will focus on *Rare Pepes* (2016-present) for my primary case study but will also survey other crypto art works to support my argument.

The majority of my research engages directly with crypto art. For supplementary material, I have relied upon the work of Jason Bailey and Hito Steyerl as well as Oliver Roeder. I will also employ the writings of Lucy Lippard, Benjamin Buchloh and Joseph Kosuth to think through the theoretical side of conceptual art.

Lay Summary

My thesis examines a budding artistic phenomenon called “crypto art.” It can be broadly defined as art that takes place on the blockchain. This technology is well-known for being the underlying foundation that Bitcoin operates upon, but there are other notable use cases for this digital architecture, including art creation and distribution. Investigating crypto art can highlight different possibilities for art production going forward, as well as the direction of the blockchain and a better understanding of cryptocurrency. Many aspects of this genre are considered “new” but several of the approaches and philosophies are shared between the makers and functions of crypto art and conceptual art. Looking at blockchain through the legacy of conceptual art demonstrates the usefulness of this technology and its capabilities in the art world. With that in mind, this paper will argue that crypto art reveals and critiques the framework of the art market.

Preface

This dissertation is original, unpublished, independent work by the author, Blake Patricia Finucane.

Table of Contents

Abstract.....	iii
Lay Summary	v
Preface.....	vi
Table of Contents	vii
Acknowledgements	viii
Chapter 1: Introduction	1
Chapter 2: The Crypto Art System and Blockchain Technology.....	9
Chapter 3: The First Generation of Crypto Art – Rare Pepes	19
Chapter 4: Historicizing Crypto Art – Conceptual Art and Beyond.....	32
Chapter 5: Conceptual vs. Crypto – Platforms and Contracts	40
Chapter 6: The Creations and Creators of Crypto Art.....	48
Chapter 7: Conclusion.....	60
Bibliography	63

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Chapter 1: Introduction

Crypto art is an emerging artistic category that challenges and makes visible traditional methods of consuming, circulating, buying, and selling art. It is generally defined as art that takes place on the blockchain (a type of distributed digital ledger).¹ While Bitcoin was the first application of blockchain technology, there are many areas where it can be used including art production and distribution. Much of what makes crypto art unique is its reliance on the blockchain, as it is reflective of this technology in both its formal and operative dimensions. The pairing of the blockchain with art creation may threaten traditional relationships that artists have with dealers and galleries while pushing and pulling at the definition of art, as it becomes intertwined with currency, tokens, data, games, memes and gifs.

There are several insights to be had in investigating this subject. Not only can studying crypto art aid in illuminating other forms of contemporary artistic practice, but also the direction of the blockchain and a better understanding of cryptocurrency. The blockchain is still in its early stages of development and the extent of its impact on society and the global economy is unknown. This technology is exceedingly complex, requiring specialized computer developer skills to build, or even interface with it directly. Examining crypto art can provide an alternative, perhaps more inviting, on-ramp to engage with it. Artists creating work with or about blockchain can also help to critically assess the technology.²

¹ Variously called “CryptoArt,” “crypto-art,” “cryptoart,” and “blockchain art” my thesis has settled on the name “crypto art” to parallel the current method of naming other artistic movements, like conceptual art, which I discuss throughout this thesis.

² Jess Houlgrave, “#BlockchainArt,” *Medium*, October 23, 2017, <https://medium.com/codexprotocol/https-medium-com-jessyblock-blockchainart-de4981678412>.

What sets crypto art apart from previous artistic movements and trends is its promise of a more efficient form of value creation for both artists and collectors, enabled by the blockchain's capabilities around tracing provenance and authenticity as well as implementing mechanisms to ensure artists get paid on subsequent sales of their work. The selling price of an art object is highly dependent on the career of the artist who produced it, and the blockchain can ensure artists are remunerated for the economic worth their work continues to accrue. It can also implement a clear line of attribution and "prove" that an object is legitimate. These appear to be exceptional outcomes that would have been unachievable in the pre-blockchain era. However, many of the approaches are shared between the makers and functions of crypto art and the language of conceptual art, which emerged in the 1960s. Thus, it is important to question what is *really* new about this practice and what fits into an art historical reading. Notions of commerce, dematerialization, decentralization and authorship—enquiries that seek to challenge how art is classified and can be bought and sold—were as foundational to conceptual art's beginnings as they are now to crypto art. Utopian hopes of a better future dominate each movement, as members are convinced that their art has the power to transform longstanding institutions.

Looking at the history of conceptual art can contextualize crypto art and garner focused observations about the artwork and the technology that it relies upon. It is helpful to unpack the genealogy of distributed practice, as crypto art may provide a unique perspective on what this previous movement was investigating. My central questions are: how has crypto art challenged the relationship to authorship, ownership, dematerialization and distribution that were fundamental to conceptual art? And what relevance does this have for blockchain technology today? In attempting to address these concepts, this paper will argue that crypto art reveals and critiques the framework of the art market. I will focus on *Rare Pepes* (2016-present) for my

primary case study, which is part of the “first generation” of blockchain based art projects.³

Concentrating on this particular example will allow me to examine the climate of crypto art more broadly in relation to blockchain technology, as well as look at how it is correlated to earlier art production. I will also refer to other crypto art works throughout the paper to support my arguments.

There are countless ways of framing crypto art, as its bounds are not yet known. Due to the scope of this paper, I will not be able to give a full survey of the genre or mention all of the notable crypto art works and businesses built up around them. Instead, I will attempt to diagnose the space at large through specific examples, identifying themes and questions that can be applied to the group as a whole. The ultimate goal for my thesis is to demonstrate that art historians can provide valuable insights to the blockchain space. The crypto art community rarely references art history, so rooting this phenomenon can garner observations that would not be available through other means, both about the art itself and the blockchain. I also want to reveal how significant crypto art is, and may ultimately be, in the history of art, highlighting the importance of studying and writing about this scene as it is developing.

As might be expected, there is minimal writing, academic or otherwise, on crypto art. The majority of my research has occurred through engaging directly with crypto art work. For supporting information, I have relied upon the writing of Jason Bailey and his podcast “Dank Rares,” where he interviews notable people within crypto art. I will also refer to two articles by Oliver Roeder, which are featured on the news website *FiveThirtyEight*, entitled “The

³ Benny Giang and Rachel Wolfson, “Digital Kitties & Decentralized Artificial Intelligence with Benny Giang,” *The Bad Crypto Podcast*, Podcast, audio, June 1, 2018, <https://badcryptopodcast.com/2018/06/02/benny-giang-simone-giacomelli-134/>.

Blockchain Is Just Another Way to Make Art All About Money” and “People Are Paying Thousands of Dollars To Own Pictures of Pepe the Frog.”⁴ He examines the relationship between blockchain based art and money, with particular concentration on Rare Pepes. His writing will be the basis of my argument about the connection between commerce and crypto art. Hito Steyerl’s 2016 essay “If You Don’t Have Bread, Eat Art!: Contemporary Art and Derivative Fascisms,” will help explain the correlation between art and finance.⁵ Other citations will primarily include articles on popular news and crypto websites, as this is where the most up to date information about crypto art is found. For art historical references, I will employ the writings of Lucy Lippard, Benjamin Buchloh and Joseph Kosuth to think through the theoretical side of conceptual art.

Roeder defies crypto art enthusiasts who trust that the blockchain can “democratize and decentralize art...taking power out of the hands of auction houses and gallerists,” giving artists more say in how their work is sold, resold, circulated and tracked.⁶ These prospects may appear positive, but he reminds the reader that, “[e]very revolution has its unintended consequences. What will be crypto-art’s?”⁷ He argues that the blockchain is “...likely to democratize and decentralize not art itself, but art *commerce*.”⁸ The author posits that, in fact, art on the blockchain could be just as exclusive as traditional art practice but for different reasons. The

⁴ Oliver Roeder, “The Blockchain Is Just Another Way to Make Art All About Money,” *FiveThirtyEight*, March 7, 2018, <https://fivethirtyeight.com/features/blockchain-is-just-another-way-make-art-all-about-money/>; Oliver Roeder, “People Are Paying Thousands of Dollars To Own Pictures of Pepe the Frog,” *FiveThirtyEight*, March 6, 2018, <https://fivethirtyeight.com/features/pepe-the-frog-symbolism-cryptoart-blockchain/>.

⁵ Hito Steyerl, “If You Don’t Have Bread, Eat Art!: Contemporary Art and Derivative Fascisms,” *Eflux* 76 (October 2016): <https://www.e-flux.com/journal/76/69732/if-you-don-t-have-bread-eat-art-contemporary-art-and-derivative-fascisms/>.

⁶ Roeder, “The Blockchain Is Just Another Way to Make Art All About Money.”

⁷ *Ibid.*

⁸ *Ibid.*

buying and selling of art may be what shifts, as the technology supports the artist in getting paid more easily, cementing arts entanglement with money even further. Laura Lotti echoes Roeder's sentiment, asking "...is 'blockchain-based art' merely radicalizing art's ethos of capitalization with its authentication, transparent circulation (i.e., tracking), and automation of valuation methods?"⁹ My thesis will attempt to engage these questions.

Crypto art mechanizes the primary ways a work is judged to be economically valuable—through provenance and authenticity.¹⁰ The better and more accurately these factors can be tracked, the more efficiently a work can garner a high price tag. Roeder is certain that this is a negative outcome, signaling the further downfall of artistic creation. I want to take a more detailed and nuanced position by focusing on some of the encouraging results of this trend. The problems that the art market has will not be "solved" by this particular technology, but might crypto art provide a way to address them?¹¹ This thesis will look to locate which, if any, of these methods are effective.

Joseph Kosuth in his essay "Art After Philosophy" identifies Marcel Duchamp's readymade as the point where art shifted from emphasizing "appearance" to focusing on the work's "conception."¹² He identifies this moment as the beginning of modern and conceptual art,

⁹ Laura Lotti, Contemporary Art, Capitalization and The Blockchain: On the Autonomy and Automation of Art's Value, *Finance and Society* 2, no. 2 (December 2016): 105, <https://doi.org/10.2218/finsoc.v2i2.1724>.

¹⁰ For more on the history of art markets and the economic valuation of art, see: *Mapping markets for paintings in Europe 1450-1750*, edited by Neil De Marchi & Hans J. van Miegroet, Turnhout: Brepols, 2006; Neil de Marchi, "History of Art Markets," *Handbook of the Economics of Art and Culture* 1 (2006): 69-122; *Beyond Price: Value in Culture, Economics, and The Arts*, edited by Michael Hutter and David Throsby, Cambridge: Cambridge University Press, 2008.

¹¹ Duncan MacDonald-Korth, Vili Lehovirta and Eric T. Meyer, *The Art Market 2.0 Blockchain and Financialisation in Visual Arts*, University of Oxford and The Alan Turing Institute, 2018 <https://www.dacs.org.uk/DACSO/media/DACSDocs/Press%20releases/The-Art-Market-2-0-Blockchain-and-Financialisation-in-Visual-Arts-2018.pdf>, 3.

¹² Joseph Kosuth, *Art After Philosophy*, 1969, http://www.ubu.com/papers/kosuth_philosophy.html.

suggesting that “the ‘value’ of particular artists after Duchamp can be weighed according to how much they questioned the nature of art...” or “what they added to the conception of art...”¹³

Crypto art appears to be pushing and pulling at how art is conceived and defined, bringing its relationship to currency and economics to the forefront, exposing the business side of art and the transactional nature of the art world.

Jess Houlgrave, crypto art advocate, “influencer”¹⁴ and owner of *Codex*, a “decentralized title registry” that stores art ownership records and provenance on the blockchain, explains that, “[t]here’s a tendency for people to say that art is just art and we shouldn’t commodify it and should treat it as something that isn’t an asset. The truth is that, for thousands of years, art *has* been an asset. It’s been very tied up with our financial systems.”¹⁵ There may be an exaggeration or acceleration of this tendency with crypto art, but for Houlgrave, this is just the obvious next step in an art ecosystem that is increasingly financialized. Crypto art exposes what has been there historically, preceded by conceptual art, while also being on the cutting edge of technological development, creating additional pathways for artists to produce art, accrue a higher price for their art, and be paid for it.

Before looking closely at the blockchain, I believe it is essential to position myself within this argument. I am an owner of cryptocurrency and a member of the crypto community in Vancouver, Canada. Quite literally, I am invested in this phenomenon. I am proficient with the technology because I use it. I actively participate in the ecosystem so I have a familiarity with how people in the community communicate with one another; I am informed about notable

¹³ *Ibid.*

¹⁴ An influencer is a person or group that has considerable “influence” or clout online, often in regards to a particular industry (i.e. fashion, makeup, crypto).

¹⁵ Oliver, “The Blockchain Is Just Another Way to Make Art All About Money.”

influencers, current events and announcements happening within the space, and I am knowledgeable about its history. I believe that this technology has potential to alter how people conceive of, use, store and spend money, as well as shift how information is organized, quantified and transferred, among countless other applications. With that being said, I understand there are many problems inherent in this system, so I will attempt to take a critical approach, addressing common objections and providing my thoughts on potential solutions. The majority of crypto-advocates speak in hyper positive terms about the future of cryptocurrency and blockchain, which appears to be a reaction to its harsh naysayers and detractors. I think it is imperative to be excited about the industry and promote its unique and distinct capabilities, but being too complimentary ignores the problems around adoption, functionality, security and ease of use.

This technology generates diverse ways to conduct commerce and exchange, not necessarily overthrowing the capitalistic system, but shifting its landscape. The blockchain expands the ways that market participants are able to make money, including new avenues of buying and selling art. This appears to be a crisis for Roeder and Steyerl, but that is not how I see it. I perceive it as an incredible advantage and opportunity. The blockchain's functionalities can open up alternative means for people to acquire income, but also express themselves and build communities. Of course, this technology can be put to harmful uses, but I think participation is required, regardless of the risks or downsides. This is especially necessary for members of my generation (millennials). We cannot afford to criticize emerging technology continuously and not partake, this could leave artists, art historians and art critics out of touch with global economic and social movements and trends. It appears that the blockchain is here to stay, so we must

recognize how it can be used for the better and leverage these functions, while still acknowledging the problems.

Chapter 2: The Crypto Art System and Blockchain Technology

Thus far, there is no explicit definition of crypto art; there are many different styles and subject matters of art production that could be considered to fall under its umbrella. Jason Bailey's recent article, "What Is CryptoArt?" identifies ten characteristics that have shaped the aesthetic and community, and this has proven to be a helpful reference.¹⁶ Crypto art can be identified as art whose subject matter has been inspired by the technology and themes of blockchain, but never gets sold on the blockchain or uses cryptocurrency. It could also be classified as a physical artwork that incorporates cryptocurrency or blockchain technology into how it functions, combining both material and immaterial attributes. Otherwise, it can be described as completely immaterial, a still or moving image that is made on the blockchain, or on a computer with the idea that it will be tokenized and sold on the blockchain. Within these parameters, the subject matter can be self-reflexive, vigorously critiquing and/or investigating the blockchain and cryptocurrency, or simply using the blockchain as part the art's structure and function.¹⁷ I maintain that for work to be considered "crypto art" it must incorporate the blockchain and/or cryptocurrency into how it operates. The blockchain is crypto art's most essential and defining feature. Thus, to understand and engage with the movement, it is necessary to be familiar with some of the basic aspects of the blockchain.

Crypto art is made possible by the rules and laws of the blockchain, which was initially invented in 2008 by the pseudonymous Satoshi Nakamoto via a detailed report, a whitepaper,

¹⁶ Jason Bailey, "What Is CryptoArt?" *Artnome*, January 19, 2018, <https://www.artnome.com/news/2018/1/14/what-is-cryptoart>.

¹⁷ Jess Houlgrave, "#BlockchainArt."

called *Bitcoin: A Peer to Peer Electronic Cash System* (2008).¹⁸ Blockchain, a type of distributed digital ledger, permits crypto art to challenge existing models of art buying, provenance, forgery and the way that artists are normally compensated. It is what *really* unites crypto art as a genre, beyond a general aesthetic or shared platform. In the media, there is never-ending discussion about the blockchain, but it is quite difficult to define, consisting of extreme technical intricacies. There is no single blockchain; rather, there are several. Most major cryptocurrencies run on their own blockchain including Bitcoin, Ethereum, EOS and Stellar. Hence, “blockchain” is a somewhat compromised term, a catchall word that is thrown around. Due to the limited length of this thesis, I run the risk of contributing to the nebulous nature of this discourse by referring to the blockchain generally. But this is nevertheless helpful, as the most prominent ones share similar characteristics and mechanics. The majority of the crypto art projects I am discussing run on top of the Bitcoin or Ethereum blockchain, which have somewhat disparate properties, but for the purposes of my argument, it is suitable to say that they work in comparable ways. It is critical to note that the blockchain can operate *without* Bitcoin. Bitcoin introduced the process of recording and organizing data via a blockchain but many people think these two are interchangeable - they are not. Bitcoin needs blockchain to run, but the opposite is untrue.

Digital images and videos can easily be duplicated and pirated via copying, pasting, torrenting, taking screenshots, and numerous other operations that a single click can produce. This makes it difficult to garner value for online art due to its unlimited reproducibility. Many proponents of Internet art used the idea that work could be inexhaustibly duplicated as a means of challenging art institutions and their economic models. As an answer to this, blockchain

¹⁸ Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, 2008.

creates “digital scarcity,” this is one of its most significant attributes. When an image is uploaded on a platform, the artist chooses how many images to offer and each number within the edition is tracked separately on the ledger via a token. The artist cannot later expand the edition as this information is a matter of public record on the blockchain. When someone buys a work of crypto art, they usually own the object in the form of a digital token. Reproductions can be made, but the provenance and price history of the original can be accessed and verified on the blockchain. The authentic works “are identifiable and cannot be replicated,” the tokens are “provably rare” or “provably scarce.”¹⁹

Tokenization is one of the central features of blockchain technology. This is how provenance is tracked. The tokens essentially act as cryptographic receipts and are a distinct class of digital assets. A token can represent a part or a whole of an artwork, which allows for “fractional ownership.”²⁰ Multiple people can own the same work and capture the value something generates, even if they cannot afford to buy the entire thing. If an artist holds a portion of these tokens, they can also stake equity in their work, providing an alternative means of getting paid and capitalizing on their art’s increasing value.

This format makes it simple to transfer art across borders, store, and exchange, elevating the work’s commercial potential in some ways. However, tokenization comes with a set of vulnerabilities. Tokens can be lost and misplaced, and there is murky legal territory around their proprietorship if they are stolen, if the owner passes away, etc. The owner can also forget or lose their passwords or keys of the wallet they are storing them in, barring them access to their tokens.

¹⁹ Daniel Penny, “How Much for That Pepe? Scenes from the First Rare Digital Art Auction,” *The Paris Review*, January 23, 2018, <https://www.theparisreview.org/blog/2018/01/23/much-pepe-scenes-first-rare-digital-art-auction/>.

²⁰ Amy Whitaker and Roman Kräussl, Democratizing Art Markets: Fractional Ownership and the Securitization of Art (January 11, 2018), <http://dx.doi.org/10.2139/ssrn.3100389>, 5.

There are complications in sending tokens from wallet to wallet as well. If someone sends tokens to the wrong address, it is basically impossible to get them back. Furthermore, there are threats of hacking or phishing attacks. There are incredible advantages that come with tokenization but there are risks which must be acknowledged.

To further understand crypto art and how features like tokenization are possible, it is helpful to look at the technical aspects of the blockchain in more detail. A blockchain is a public database or data structure, but no one person or company has control over what is stored in it. The Bitcoin whitepaper introduced this concept. M McConaghy, G McMullen, G Parry, T McConaghy, D Holtzman in their paper, “Visibility and digital art: Blockchain as an ownership layer on the Internet” lay out some of the intricacies of the technology.²¹ In the case of the Bitcoin blockchain, they write that, “participants in the network, known as ‘nodes,’ record transactions on a public ledger.”²² A group of transactions are amassed and categorized together into a “block,” which is then attached to the preceding group of transactions, subsequently creating a “chain.”²³ Blocks are generated by nodes solving highly complex math equations which, demand significant computing power.²⁴ Whichever node ends up “solving the puzzle” receives Bitcoin in return.²⁵ This procedure is called “mining,” and it is how the network is secured.²⁶ The writers clarify that, “[t]he more computing power dedicated to solving the equation, the harder it gets...[so,] blocks are created on a fixed schedule, approximately six per

²¹ M McConaghy, G McMullen, G Parry, T McConaghy, D Holtzman, “Visibility and Digital Art: Blockchain as an Ownership Layer on the Internet,” *Strategic Change* 26, no. 5 (September 2017): <https://doi.org/10.1002/jsc.2146>.

²² *Ibid.*, 462.

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ *Ibid.*

²⁶ *Ibid.*

hour. Every block has its own unique cryptographically generated code called ‘a hash,’ which is added to the next block of transactions, effectively locking the blocks together in a linear time sequence and ensuring individual transaction records are not duplicated.”²⁷ This confirms that no blocks have been tampered with, making the blockchain “immutable.”²⁸

The blockchain is a legitimating entity. No matter how many times a work is bought and sold, the original purchase and the purchases of future owners are documented, creating a shared, single source of “truth.” The architecture of the blockchain is fundamental to the operations and capabilities of crypto art and can help resolve issues of authorship and ownership. Trust is embedded in the protocol, which functions without central control, it compels a user to have faith in the technology and not in the other party they are interacting with. Blockchains are dispersed across thousands of computers, so there is no single point of failure. The system is distributed, designed to eliminate the need for central authorities like banks or governments, introducing a different method of managing and controlling information.

Libertarian sentiments dominate how the blockchain’s advantages are usually positioned and often include the idea of a user’s “freedom” from state regulations and documentation. Much of the crypto community’s rhetoric involves discussions about financial “sovereignty” and the rejection of big banks and governments. The Bitcoin whitepaper was published in the immediate aftermath of the stock market crash of 2008. It offered a novel method for controlling money, taking it out of the hands of banks and governments and permitting citizens to handle it on their own. The blockchain is thus seen as a “tool for justice... taking agency away from state

²⁷ *Ibid.*

²⁸ *Ibid.*

apparatus and distributing it to users according to a homogenously ordered system of relations,” echoing libertarian philosophy and moving away from centralized institutions.²⁹

This influence is visible in how the blockchain’s incentive structure is arranged. The technology relies on people wanting to run and secure the network for financial rewards. The promise of profit is positioned as the chief motivator of human behavior. This fundamental guarantee or assumption—that people primarily act in the interest of money—is what organizes the network. Crypto art is a product of this system, so it makes sense that a notable amount of its novelty and usefulness is related to how it can support artists in making money.

It is important to mention that in developed countries, art made on or using the blockchain does not provide a complete overhaul of the traditional art system. These applications are operating within typical governance structures, relying on property laws and agreements that require conventional contracts. However, the technology is censorship resistant, someone only needs a device connected to the Internet to participate. Everyone is responsible for their personal tokens/cryptocurrency, which one must organize, store and trade on their own. This set up enables the user to protect themselves from governments or banks making rules about how an individual can handle their money and/or property.

For the typical person, it is probably much safer to store their holdings in a bank account, especially in the developed world.³⁰ At this stage of the blockchain’s history, many novice cryptocurrency users are overwhelmed by its technical demands. Conversely, when the capabilities of cryptocurrency are applied to art creation, I believe the value proposition of owning

²⁹ Rob Myers, “Blockchain Poetics,” in *Artists Re:Thinking the Blockchain*, ed. Ruth Catlow, March Garnett, Nathan Jones and Sam Skinner (Liverpool: Liverpool University Press, 2017) 245.

³⁰ Daniel Larimer, “Decentralized Blockchain Governance,” *Medium*, June 20, 2018, <https://medium.com/@bytemaster/decentralized-blockchain-governance-743f0273bf5a>.

tokens increases. Someone can purchase art from anywhere in the world and own it instantly; they can also store it and display it any way they like and the provenance and authenticity are guaranteed. It is portable and liquid as well. There are expensive transactions fees involved in buying, selling and trading art globally, which means that cryptocurrency can be useful in cutting costs.³¹

Even with the tremendous opportunities that blockchain technology offers for the art industry, it is still an immature technology. It has exceptional promise but it must be noted that there can be bugs in the software code that can cause unintended consequences.³² Steyerl writes that, “Bitcoin is potentially just as dependent on group power as art-market values are dependent on consent, collusion, and coincidence. What looks like incorruptible tech in practice hinges on people’s actions.”³³ Tim Schneider contributes to this discourse in a critical piece on Artnet. He writes: “...since software doesn’t magically write itself, ‘trusting in the software’ on some level means *‘trusting in the people writing the software.’*”³⁴ As much as “code is law” there are ways in which developer’s choices can shift how the technology is able to work.³⁵

³¹ Jess Houlgrave, *Blockchain & Art: Produce, Distribute, Secure*, Youtube video, June 27, 2018, posted by *Tech Open Air*, https://www.youtube.com/watch?v=ok6qjDP4bXg&feature=youtu.be&utm_content=73937732&utm_medium=social&utm_source=facebook%2F.

³² In his article, “Decentralized Blockchain Governance,” Dan Larimer writes: “Ethereum’s shadow-government hard-forked to fix the DAO hack. Bitcoin mining pools voted on which fork to support when a software upgrade introduced a long unintended fork. The Ethereum foundation has used Trademark law to define the official version of the chain that exchanges are allowed to list. Segwit was accepted due to a summit of community leaders who voted on a compromise that included increasing the block size only to be betrayed due to the phased-rollout plan that later abandoned big blocks.”

³³ Steyerl, “If You Don’t Have Bread, Eat Art!”

³⁴ Tim Schneider, “The Gray Market: How One Warhol Auction Embodies the Blind Spots of Many Blockchain Art Startups (and Other Insights),” *Artnet*, June 25, 2018, <https://news.artnet.com/opinion/gray-market-maecenas-blockchain-auction-1308482>.

³⁵ Larimer, “Decentralized Blockchain Governance;” Steyerl, “If You Don’t Have Bread, Eat Art!”

It is helpful to put this into perspective by considering a report produced in part by The University of Oxford, citing that blockchain is like “the Internet in 1993.”³⁶ Internet adoption and usage has come with incredible benefits and serious dangers, and blockchain’s increasing popularity, and the risks and rewards associated it with, can be looked at like this too. The blockchain’s growing adoption will not be smooth. There will be trade-offs around ease of use and quickness in exchange for accurate tracking, transparency, portability and liquidity.

Blockchain can be most readily applied to “low trust environments” like selling and buying art, especially from someone you do not know. It appears to particularly suit art that is immaterial. There is a caveat to this, because even though this art does not exist in physical form, it does depend on the material qualities built up around infrastructure of the Internet as well as computing devices. Putting this aside, to link an entry on the blockchain to an actual physical work, it needs a physical identifier that attaches it to a digital record and the blockchain cannot verify this is happening correctly.³⁷ This is why I consider art that exists purely in a digital realm with no physical presence to be the most suited to the blockchain, as it can be tracked automatically. The art industry as a whole primarily involves physical objects and a substantial amount gets done behind closed doors, creating problems around artists rights and attributions because connections get broken at the point of sale. The blockchain can help support transitioning into a more equitable system for artists especially when it comes to payment.

One of the most notable ways in which the blockchain can shift art sales is through the implementation of smart contracts. A “smart” contract, which is written on top of the blockchain,

³⁶MacDonald-Korth, Lehonvirta and Meyer, *The Art Market 2.0.*, 3

³⁷Terence Eden, “How I became Leonardo da Vinci on the Blockchain,” *Terence Eden’s Blog*, June 12, 2018, <https://shkspr.mobi/blog/2018/06/how-i-became-leonardo-da-vinci-on-the-blockchain/>.

acts like a normal contract except the conditions are “evaluated and executed by computer code making it trustless.”³⁸ It completes the contract automatically, eliminating the necessity of a third party to carry out various conditions (i.e. lawyers), minimizing transaction costs.³⁹ Although, it may be worth having a lawyer who knows code to review the developer’s code before this is “okayed.” This is necessary because smart contracts are extremely difficult to write and often have bugs or glitches.

Smart contracts can guarantee a permanent “reward mechanism where an artist is paid dividends when their art is traded at a higher cost, allowing them to share in their own success in ways not possible before.”⁴⁰ Code can be written that states “when the subsequent sale is made, 20% is paid to the artist and 80% is paid to the seller.”⁴¹ As Jake Fry explains, “smart contracts can also follow rules like ‘swap the owners of these two artworks, but if one of the swaps fails, cancel the other one as well,’” which is called an, “atomic swap.”⁴² This “enables instantaneous and trustless exchange between two parties.”⁴³ When a work is purchased, instructions around remuneration and stipulations in regards to exhibitions, insurance, commission, reproduction, copyright, lending, exhibition can be written into smart contracts. In this way, the blockchain can automate certain processes, granting additional protection for artists. It should be noted that a smart contract does not look at the “extenuating circumstances,” there is no leeway or room to

³⁸Jimmy Song, “The Truth about Smart Contracts,” *Medium*, June 11, 2018, https://medium.com/@jimmysong/the-truth-about-smart-contracts-ae825271811f?_ke=eyJrbF9lbWFpbCI6ICJiZWZyYm9hdDAxQGJibG9lZC5jb20iLCAia2xfY29tcGFueV9pZCI6IjQWlhxS1oifQ%3D%3D.

³⁹*Ibid.*

⁴⁰Jake Fry, “An Artist’s Guide to Blockchain / Part 2,” *Medium*, February 18, 2018, <https://medium.com/xlnt-art/an-artists-guide-to-the-blockchain-part-2-f472eb74df41>.

⁴¹*Ibid.*

⁴²*Ibid.*

⁴³Alex Tapscott and Dan Tapscott, *Blockchain Revolution*, (New York: Penguin Random House, 2016) 163.

negotiate once they are set.⁴⁴ It is essential to be cognizant of these conditions when implementing and using a smart contract, as there are several hurdles that must be addressed.⁴⁵ Yet, I predict that the difficulties around writing and instituting these contracts will become easier as the space matures and more development occurs. Just because these applications pose certain problems, I do not think that they should be dismissed, but rather worked around, keeping the risks in mind.

⁴⁴Jimmy Song, “The Truth about Smart Contracts.”

⁴⁵*Ibid.*

Chapter 3: The First Generation of Crypto Art – Rare Pepes

After going through the general characteristics and capabilities of the blockchain, it is useful to focus on a specific case study. Rare Pepes are the genesis of many of the norms and culture of crypto art, so it is fitting that I focus primarily on this project. According to Jason Bailey, it was “the first blockchain community where anyone could submit artwork to be bought, sold, traded, or destroyed on the blockchain” and it did not take commissions from sales on their site.⁴⁶ Pepe was originally part of a comic by artist Matt Furie called *Boys Club*.⁴⁷ It was featured in a zine he made using Microsoft Paint called *Playtime*, which was a series of blogs he posted on Myspace in 2005.⁴⁸ In its first incarnation, Pepe was black and white, a cartoon frog with protruding eyes and lips that expanded almost across the entire width of his face.⁴⁹ The comics depict Pepe with his friends doing stereotypical male college student activities like playing video games, eating pizza and smoking.⁵⁰ In one comic, Pepe answers a question with, “Feels good, man.”⁵¹

Pepe, in relation to this particular saying, gained traction in 2008 and became a meme among 4chan users, who adapted Pepe's face and the motto to fit different scenarios and emotions.⁵² Colour was also added, he became green with brown lips, usually in an electric blue shirt. As the character became more widespread, 4chan users began referring to the more outlandish and

⁴⁶Jason Bailey, “Rare Pepe Wallet & The Birth of CryptoArt,” *Artnome*, January 25, 2018, <https://www.artnome.com/news/2018/1/23/rare-pepe-wallet-the-birth-of-cryptoart>.

⁴⁷Giacco Furino, “Pepe the Frog’s Creator Talks Making Zine History,” *Creators*, August 3, 2016, https://creators.vice.com/en_us/article/qkw97d/pepe-frog-creator-matt-furie-talks-zine-history.

⁴⁸*Ibid.*

⁴⁹Sean T. Collins, “The Creator of Pepe the Frog Talks About Making Comics in the Post-Meme World,” *Vice*, June 28, 2015, https://www.vice.com/en_us/article/avy3aj/feels-good-man-728.

⁵⁰Furino, “Pepe the Frog’s Creator Talks Making Zine History.”

⁵¹Collins, “The Creator of Pepe the Frog.”

⁵²Penny, “How Much for That Pepe?”

original variations of the meme as “Rare Pepes.”⁵³ In 2016, the cartoon's image had been appropriated as a symbol of the alt-right movement, specifically in relation to Donald Trump’s presidential campaign.⁵⁴ The Anti-Defamation League responded by deeming certain Pepes as hate symbols.⁵⁵

The Rare Pepe crypto art community began on September 8, 2016, when “Mike” (@nola1978) posted a “Rare Pepe” in the Counterparty Telegram⁵⁶ group chat.⁵⁷ Counterparty is a “second layer protocol” of the Bitcoin blockchain, which permits users to create digital cryptographic tokens.⁵⁸ It also enables smart contracts to be employed via Counterparty’s APIs.⁵⁹ It offers a way to put tokens on top of the Bitcoin blockchain while using the security of the Bitcoin network. A separate Telegram chat group was created as a result of others wanting to pair their Rare Pepes with Counterparty assets.⁶⁰ The subsequent creations had to be bought and sold on the Counterparty exchange and there was no wallet to store them in. Soon after, Joe Looney developed the *Rare Pepe Wallet*⁶¹ to facilitate easier storage and The Rare Pepe Foundation was established to deal with administration. There was no planning

⁵³*Ibid.*

⁵⁴Oren Segal, “Pepe the Frog: yes, a harmless cartoon can become an alt-right mascot.” *The Guardian*, September 29, 2016, <https://www.theguardian.com/commentisfree/2016/sep/29/pepe-the-frog-alt-right-mascot-racist-anti-semitic>.

⁵⁵*Ibid.*

⁵⁶Telegram is a cloud-based social messaging app which is a central hub for the crypto community. The service provides end-to-end encryption for voice calls, and optional end-to-end encrypted chats between two online users.

⁵⁷Bailey, “What Is CryptoArt?”

⁵⁸J SCRiLLA, “Introduction to CryptoArt & CryptoMusic,” *Medium*, March 10, 2018, <https://medium.com/@ScrillaVentura/introduction-to-cryptoart-cryptomusic-3752923792c7>.

⁵⁹ API stands for “application programming interface” which are, essentially, instructions for how different software components should communicate with one another.

⁶⁰Jason Bailey, and Joe Looney, “Interview with Joe Looney,” *Dank Rares*, Podcast, audio, February 18, 2018, <http://dankrares.com/interview-with-joe-looney>.

⁶¹Accessed at: <https://rarepepewallet.com/>

around growing or building the community; it happened organically, responding to increased demand.

Soon after Mike posted this original image, Hilary Clinton denounced Pepe as a symbol associated with white supremacy.⁶² Furie and The Rare Pepe Foundation disown this relation.⁶³ The Telegram community has over fourteen hundred members⁶⁴ and they never speak about the alt-right and people are banned if they show any signs of support for it.⁶⁵ Instead, the group has “always associated [Pepe] with creativity.”⁶⁶ This speaks to the malleability of memes, they are made to spread quickly and be easily grasped. It shows how this can backfire too, as they can be injected with meaning to suit a group’s goals and intentions. Memes can possess tremendous power, they can be a tool to build interest in a certain subject through a concept or symbol, but these concepts and symbols can be coopted for nefarious or harmful means.

Anyone can submit their Rare Pepe to the Rare Pepe Foundation, as long as an artist’s profile is created. A trading card template is available, but not mandatory, although there are certain requirements that you need to meet.⁶⁷ Pepes have to “be 400 x 560 pixels” and “can be animated GIFs but must be kept to 1.5 MB or less in size,” “Not Safe For Work” content is outlawed and “the image must have something to do with Pepe.”⁶⁸ You can issue anywhere from one hundred to one hundred thousand shares which cannot be divisible and have to be locked so the amount cannot change.⁶⁹ Websites or QR codes are not allowed and an artist can only submit

⁶²Bailey, Jason. “Blockchain Artists Wanted.” *Artnome*, February 4, 2018, <https://www.artnome.com/news/2018/2/2/blockchain-artists-wanted>.

⁶³*Ibid.*

⁶⁴ This is the amount as of August 4, 2018.

⁶⁵Bailey, “What Is CryptoArt?”

⁶⁶*Ibid.*

⁶⁷*Ibid.*

⁶⁸*Ibid.*

⁶⁹*Ibid.*

one proposal each day.⁷⁰ If an artist follows these rules, they can upload their image to a bot, which sends it to a private Telegram room where the “Rare Pepe Scientists” vote if the submission can be put onto the website.⁷¹ There are eight to ten “scientists” and only a few of them need to actually “okay” the meme for it to be approved.⁷² Looney says they just act as a “spam filter, they are not trying to tell people what good art and bad art is...”⁷³ It is only a mechanism to “keep out the ones that are questionable.”⁷⁴ They also do not take commission.

This arrangement echoes the utopic and communal undertones of the crypto community. Developers who contribute to the protocols, whether it be Bitcoin, Ethereum, etc., are not paid. Instead, incentives are built in to the process. If they improve the blockchain, its’ native currency should increase in price, so there are still financial incentives. This appears to be how Rare Pepes are set up, by participating, you are assisting the ecosystem and making it more profitable. The pinnacle of this was expressed in a “Homer Pepe” which sold for over \$39,000 at the Rare Art Labs’ Rare Digital Art Festival in January 2018 (at the height of cryptocurrency prices).⁷⁵ These communities are designed to rely on large networks, imitating the blockchain’s infrastructure.

The *Rare Pepe Wallet* platform is separate from the actual “art” and/or tokens but aids Pepe in being bought, sold and submitted in a straightforward manner. It acts as a wallet to store your Pepes, as well as a market place to buy, sell and trade them. The website is quite simple, featuring approximately eighteen hundred Rare Pepes,⁷⁶ with more added regularly. Roeder

⁷⁰*Ibid.*

⁷¹Bailey, “Blockchain Artists Wanted.”

⁷²Jason Bailey, and Joe Looney. “Interview with Joe Looney.”

⁷³Jason Bailey, “What Is CryptoArt?”

⁷⁴Jason Bailey, and Joe Looney. “Interview with Joe Looney.”

⁷⁵Jason Bailey, “What Is CryptoArt?”

⁷⁶The amount as of August 4, 2018.

describes it as a “digital bazaar.”⁷⁷ The site offers the artist the option to set a price for their cards or wait until someone bids on them to then set a price, making it easier to read market sentiment. This supports the artist in judging the supply and demand for their work in real time, helping them choose an appropriate amount to sell it for. The ease of selling one’s work is a central feature of Rare Pepes.

Rare Pepes are traded via a cryptocurrency called Pepe Cash (you are also able to buy them with XCP, the Counterparty token), which is listed on exchanges in America and Japan. Each Rare Pepe carries a finite number of digital tokens, and these tokens are what are bought and sold in the acquiring of one of the digital frogs. The prices of Rare Pepes swiftly shift with “the exchange rate between U.S. dollars and Pepe Cash.”⁷⁸ The circulating supply of Pepe Cash is 701,884,009 and the currency has a fluctuating market cap.⁷⁹ The image itself is not directly associated with the token, although there is an actual file related to each Pepe on the IPFS (Interplanetary File System), which offers storage that is tied to the hash.⁸⁰ This literalizes the relationship between art and the market. Looney says that the art is the token, and the image is just what it looks like.⁸¹ As Roeder exclaims, “the art, literally and technically, *is* the currency.”⁸²

Pepe Cash circulates on the Bitcoin blockchain, the same channel on which Bitcoin is exchanged, horizontalizing money and art. This cryptocurrency morphs from a payment system into a limited-edition work of art. Roeder is especially weary of this affiliation, as it represents

⁷⁷ Oliver Roeder, “People Are Paying Thousands of Dollars To Own Pictures of Pepe the Frog.”

⁷⁸ Roeder, “The Blockchain Is Just Another Way to Make Art All About Money.”

⁷⁹ Roeder, “People Are Paying Thousands of Dollars To Own Pictures of Pepe the Frog; as of August 4, 2018, the market cap is approximately ten million USD.

⁸⁰ Cynthia Gayton and DJ J \$crilla, “ART ON THE BLOCKCHAIN Episode 4 Feat. Joe Looney,” *ART ON THE BLOCKCHAIN Podcast*, Podcast, audio, May 6, 2017, <https://soundcloud.com/artontheblockchain/aotb-episode-4-featuring-joe-looney>.

⁸¹ Jason Bailey and Joe Looney. “Interview with Joe Looney.”

⁸² Roeder, “The Blockchain Is Just Another Way to Make Art All About Money.”

the pinnacle of cementing the longstanding relationship, as now, “[art] *lives* on a financial system.”⁸³ But it looks like this may be just a typical next step in the continuing financialization of art. Julian Stallabrass in his book *Internet Art – The Online Class of Culture and Commerce* argues that in current times, “use and placement are the main elements that separate art and advertising.”⁸⁴ It appears this is similar to how Rare Pepes are positioned, but instead of advertising, it is currency.

Hito Steyerl looks at the “hypothetical possibility” of art as a currency.⁸⁵ She believes that in the current geopolitical landscape, art looks more stable than the prospects of many national GDPs and that “...as alternative currency, art seems to fulfill what Ethereum and Bitcoin have hitherto only promised,” as it holds its value even when governments are in disarray.⁸⁶ She posits that art and cryptocurrency share several of the same characteristics, “Rather than money issued by a nation and administered by central banks, art is a networked, decentralized, widespread system of value... the value is not in the product but in the network.”⁸⁷ This is comparable to cryptocurrency and blockchain, which rely on the power of the network. Furthermore, Steyerl considers that, like cryptocurrency, art is encrypted as it takes experts to actually understand it, and relies on scarcity to bolster its price.⁸⁸ Rare Pepes embody how art commonly operates, as both a currency and a store of value. If it is a point of criticism that crypto art functions too much like money, this echoes the general art market landscape,

⁸³ *Ibid.*

⁸⁴ Julian Stallabrass, *Art Incorporated: The Story of Contemporary Art* (Oxford: Oxford University Press, 2004), 160.

⁸⁵ Steyerl, “If You Don’t Have Bread, Eat Art!”

⁸⁶ *Ibid.*

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*

where these art objects operate as commodities and blockchain just allows a different iteration of it.

With all the resemblances between art and cryptocurrency, Steyerl, like Roeder, is not convinced that anything positive can come from the adoption of the blockchain in the art world. She is skeptical that the technology can actually aid in protecting artists and making the art market less corrupt. She warns readers not to “expect any kind of progressive transformation to happen by itself—just because the infrastructure or technology exists.”⁸⁹ However, crypto art does appear to be opening up and expanding art production, and instituting systems that help the artist, creating guarantee of payment upon sale and better tracking of work.

At this point, I think it is important to bring in some specific examples of Rare Pepes and talk about their visual characteristics and content. As of writing, there are four volumes of Rare Pepes posted on the website.⁹⁰ Within each volume is a series of ten, all containing fifty cards, with every card being arranged in chronological order. In the earlier series, many of the Pepes are depicted in trading cards. This echoes the close relationship between crypto art and gaming. Looney calls Pepe Cash an “in game currency,” Rare Pepes could have exclusively used XCP, the Counterparty token, but the creators wanted to have an immersive experience and support a micro economy.⁹¹ These cards consist of black borders and set out the attributes of the frog including its speed and its number of lives. The image of the frog, in all its reincarnations, dominates the upper half of the card, and the bottom half is an explanation or saying related to the character, and it also outlines its “rareness score.” As the volumes go on, they look less and

⁸⁹ *Ibid.*

⁹⁰ This is the amount as of August 4, 2018.

⁹¹ Jason Bailey, and Joe Looney, “Interview with Joe Looney.”

less like trading cards, and feature a central image that pushes into the entire space of the rectangle.

Many of these cards are references to “real” people who are relevant pop culture figures—Drake, Kim Kardashian, Edward Snowden, etc. This speaks to the memetic ethos of Rare Pepes, as these figures are well known and easily related to. Most feature the body of a celebrity or figure with a Pepe head. Politicians are also proliferous, there are several cards featuring Trump, Clinton and Vladimir Putin. It is hard to know if they are poking fun at these leaders or glamourizing them. This is a danger of meme-based work, as it hovers between absurdity, inappropriateness and humor.

There are several cards based on artists or their work such as Jean Michel Basquiat, Keith Haring, Piet Mondrian, Jackson Pollock, Salvador Dali and Andy Warhol. The lack of female figures points to the unequivocal male dominance in crypto art and the crypto community in general, suggesting a major barrier to entry. Often times, these images are simple, even rudimentary, with bright, punchy colours. You do not need to be an art expert to understand them, in fact, this group may find Rare Pepes alienating. They are not designed for a contemporary art audience, but for their own community. Not deep or especially thought provoking, Rare Pepes are essentially Internet memes or at least embody that spirit.

Some Pepes are also gifs, emphasizing their digital medium, meant to be viewed on a smart phone or computer. Certain cards even come with “VIP content,” including songs and video games, which “expands the art from being image-based to being multimedia-based.”⁹² Crypto art can be presented and paired with music, games, etc. One of the most notable is the DJ Pepe cards

⁹² Bailey, “What Is CryptoArt?”

which unlocks eighteen songs on token.fm, created by DJ J Scrilla.⁹³ This demonstrates the ways in which a dematerialized, digital art object can offer features that would not be possible with a physical item, demonstrating what crypto art can make possible.

Despite the simplicity of the image, the genre is generally self-referential, featuring events, equipment and personalities within cryptocurrency and blockchain, as well as Internet culture born on websites like 4chan and Reddit. This requires users to have a relatively sophisticated knowledge of the crypto milieu. Rare Pepes features homages to some of the most famous crypto influencers or icons including the Winklevoss twins, Vitalik Buterin, Charlie Lee and Vinny Lingam. Referring to specific people can garner support and affinity, as this specialized content can attract people from the larger crypto world. Crypto art is often customized to the community's preferences and knowledge base, which appears to be a product of platforms encouraging users to create their own art. Stallabrass concludes that art "at all levels (from academic to commercial) defines itself against mass culture," by employing "complex references to art history that require specialist knowledge of its viewers."⁹⁴ Rare Pepes ride that line, balancing between specialized crypto knowledge and the language of memes – recognizable images with short, concise captions – to get their point across.

Crypto art's content is an embodiment of its digital environment. The work is regularly memetic, made to be easily understood with virality in mind.⁹⁵ Memes are somewhat stigmatized, not thought of as a creative or artistic, simply a tool for spreading funny, cute or

⁹³ Cynthia Gayton and DJ J Scrilla, "ART ON THE BLOCKCHAIN Episode 2 Feat. Theo Goodman," *ART ON THE BLOCKCHAIN Podcast*, Podcast, audio, May 4, 2017, <https://player.fm/series/art-on-the-blockchain-podcast/art-on-the-blockchain-episode-2-feat-theo-goodman>.

⁹⁴ Stallabrass, *Internet Art*, 174.

⁹⁵ Bailey, "What Is CryptoArt?"

controversial ideas and pictures online, but in the crypto art sphere, they dominate and thanks to blockchain technology, they can be monetized. Normally, Internet memes take the structure of a common image, in which certain sayings are rotated to suit diverse scenarios. The original photo is circumscribed with meaning which, evolves to reference current events or trends. The most widely shared memes are usually ones where the source material can convey varied emotions and represent a wide array of scenarios.

Steyerl contends that, “[a]rt is increasingly labeled as a decadent... out-of-touch, cosmopolitan urban elite activity” but crypto art, which is based on memes and Internet culture, does not appear to be this way.⁹⁶ Somewhat paradoxically, she predicts that, “[i]nconvenient art will fly out the window... anything that requires an investment of time and effort instead of conspicuous money.”⁹⁷ This appears to double back on her issue with the elitism of art. If art is easier to follow, more people will be interested in it and not be turned off, expanding its audience. She may not like Rare Pepes, as the images are quite simple and undeveloped. Nevertheless, I think there is something to be said for art being made by people who did not go to art school or have art historical training, this does open up more possibilities around who can be defined as an artist. It can interest an entirely different group of people who may have never taken an interest in art before.

The differences in how crypto art functions versus traditional art is exemplified in the ways its quality is judged and which ones sell for high prices. Instead of being evaluated by the prominence of the artist within canonical narratives and art communities, Travis Uhrig believes

⁹⁶ Steyerl, “If You Don’t Have Bread, Eat Art!”

⁹⁷ *Ibid.*

crypto art works are primarily evaluated by how rare they are, often selling better if they are in a set, and feature “original content.”⁹⁸ A work’s “rareness” is essential, an indicator of value made entirely possible by the blockchain. The leveraging of its distinct technical capabilities is completely intertwined with artistic creation and the economic evaluation of crypto art. Of course, if a work features a character that is cute or funny, it can fetch a higher price, which is reflective of how memes are valued by fashions and mass desire on social media and chatrooms.

Aesthetically pleasing works can also sell for substantial amounts, as in the case of *Modern Pepe*, which is one of the more expensive cards sold on the site. This is a Rare Pepe that does not feature Pepe the Frog as a figure, but rather colours drawn by percentage from a typical “portrait” of him. It consists of a large green stripe that takes up half the card, followed by a black strip half the size, trailed by white and orange stripes approximately one fourth the size, ending with red and pink stripes one eighth the size. With mottling in the colour that appears to suggest the texture of a canvas surface, the image does not take on the traditionally slick characteristics of a meme but rather those of a Barnett Newman or Morris Lewis painting. Its value is awarded through a combination of what might be considered appealing in traditional painting, a typical meme and what the blockchain creates around verifiable scarcity.

It is also common for the artist to be either unknown (in that they lack a reputation) or anonymous (in that they do not sign or publicly claim their work). And because of the technology, the buyer and seller are able to remain unidentified as well. Though the identity of the artist is essential to how a work is priced in the conventional art market, the buyer is most

⁹⁸ Jason Bailey and Travis Uhrig, “An Interview with Curio Cards Founder Travis Uhrig,” *Dank Rares*, Podcast, audio, March 11, 2018, <http://dankrares.com/an-interview-with-curio-cards-founder-travis-uhrig>.

often unknown by the wider community, as galleries and auction houses are notoriously secretive. In this way, there is some correspondence between the established and crypto art markets, but artistic quality and value appear to be assessed differently in the latter. The artist's name and the "brand" or following that is associated with it are not particularly relevant. That said, this may change as more artists look to capitalize on the space and begin to build their names.

There are few well known Rare Pepe artists, although Bailey presumes that someone can recognize certain creators' style if the works are studied closely. One of Looney's favorite artists is DaVinci, who is based in Japan and is the owner of a "drone shop."⁹⁹ Bailey considers the artist ICQ "the Jeff Koons of Rare Pepe."¹⁰⁰ He thinks up concepts but "pays another artist to execute them."¹⁰¹ Bailey mentions that ICQ paid someone to produce BLAINPEPE.¹⁰² This image featured what looks like an oil painting of the magician David Blaine's head, with a classic image of Pepe the Frog coming out of his mouth with the caption, "I gotta pay the bills." This is another pop culture reference to one of Blaine's most famous tricks that is called, "The Human Aquarium" where he regurgitates live frogs after they have been in his stomach for a couple of hours. Bailey even located a "Rare Pepe Agent" named PimpingKek, who recruits artists to make crypto art and consults them on appropriate pricing.¹⁰³ This points to the growing ecosystem of people who are looking to capitalize on what blockchain technology is able to facilitate around artistic creation.

⁹⁹ Bailey, "What Is CryptoArt?"

¹⁰⁰ *Ibid.*

¹⁰¹ *Ibid.*

¹⁰² *Ibid.*

¹⁰³ Roeder, "People Are Paying Thousands of Dollars To Own Pictures of Pepe the Frog."

The technological infrastructure of Rare Pepes—the blockchain and *Rare Pepe Wallet*—make them simple to trade, as well track their provenance and authenticity. The decentralized nature of blockchain-based art also allows Rare Pepes to be created from anywhere around the world, as long as someone has Internet connection. These artworks further demonstrate the possibilities, and paradoxes, of crypto art and the blockchain.

Chapter 4: Historicizing Crypto Art – Conceptual Art and Beyond

It is essential to historicize crypto art and the blockchain, and its functions and promises in relationship to art, because much of it is considered “new.” This echoes the dominant ideology within the crypto and tech communities which focuses on innovation and constant improvements, almost erasing past developments. Crypto art is also looked down upon because it is able to facilitate unique methods of economic value creation, highlighting how the world of art criticism and history is often reluctant to discuss the market and for how much artworks are bought and sold. Many of the premises around crypto art’s novelty are false, which can be revealed through examining the work and theories of certain conceptual artists. Many characteristics that were endemic in conceptual art are now prominent in crypto art, though the discourse around the latter appears to lack an awareness of this history.

Roeder cites Andy Warhol as the most notable artist whose work acted in similar ways to crypto art. This is an obvious choice, as Roeder explains: “No one artist’s work was more responsible for melding art with cash than Andy Warhol’s, which generates great mass media appeal and exists in great quantities...”¹⁰⁴ The artist openly proclaimed his affinity for commercial success and making money, looking to promote his art and brand to the widest audience possible. Of course, crypto art, in some ways, does evoke this moment, melding currency with art creation. There is a lot that could be written about the relationship between pop art and crypto art, but considering the length of this paper, I have chosen to focus on only one historical movement.

¹⁰⁴ Roeder, “The Blockchain Is Just Another Way to Make Art All About Money.”

I think it is more useful and appropriate to parallel crypto art to conceptual art, a genre that generally sought to foreground (and transgress) the commercialist tendencies of the art world, by actively exploring its institutional frameworks and codes—in particular its exploitation of the contact. I think this comparison allows me to make a stronger argument about how crypto art is simply replicating the larger art system, regardless of an artist’s intentions around being commercially successful. The “dematerializaion of the art object,” which was written about in 1973 by Lucy Lippard in her book of the same name, identified the quintessential features of conceptual practices. Conceptual art, as she described it, could be defined as “work in which the idea is paramount and the material form is secondary, lightweight, ephemeral, cheap, unpretentious and/or ‘dematerialized.’”¹⁰⁵ It was easily portable, able to be created outside of the major art centers, which challenged the elitist tendencies of art institutions as well as how art could be bought and sold. The digital and contractual determination of crypto art works in similar ways, decentralizing art creation and sales, allowing for hyper portability and the rejection of the traditional art industry, all while being a token that one does not physically hold. Considering these characteristics, crypto art begs a comparison to conceptual art.

Seth Siegelau’s *The Artist’s Reserved Rights Transfer and Sale Agreement (The AC)*, published in 1971, was an art object as well as a functional contract that artists could employ in the sale of their own work. They only had to “slightly alter” it as they saw necessary to suit the transaction that was taking place.¹⁰⁶ Siegelau was best known as an art dealer, curator, and

¹⁰⁵ Lucy Lippard, “Escape Attempt,” in *Six Years: The Dematerialization of the Art Object from 1966 to 1972* (New York: Praeger, 1973), Vii.

¹⁰⁶ Seth Siegelau, “The Artist’s Reserved Rights Transfer and Sale Agreement,” in *The Artist’s Contract: Interviews with Carl Andre, Daniel Buren, Paula Cooper, Hans Haacke, Jenny Holzer, Adrian Piper, Robert Projansky, Robert Ryman, Seth Siegelau, John Weber, Lawrence Weiner, Jackie Winsor*, 43.

publisher who played a central role in the promotion and building of the conceptual art movement. His agreement combined clauses about artistic integrity and economic compensation, with Article 2 receiving the most attention from buyers and the art world at large. This entry outlined that an artist is entitled to fifteen percent of the profits on any resale of their work. Other sections detailed demands beyond economic compensation, including how the work can be displayed and maintained, in order to support the artist's original vision. This is what smart contracts have the ability to enable as well, they can stipulate numerous conditions that survive in perpetuity as part of the artwork itself.

Siegelaub disclosed that the document was “an attempt to give the control over the work of art to the artist, which included the repair, restoration, public exhibition rights [and] photographic rights.”¹⁰⁷ He designated the artist as the chief actor, demanding privileges for him or her that were often ignored, actively countering, as the contract defined it, “the current ordinary practices and economic realities of the art world, particularly its private, cash and informal nature.”¹⁰⁸ This appears to be what Rare Pepes, and much of what crypto art is doing, empowering the creator to take control of sales and distribution of their work. Contracts in both cases center the artist, making them the main protagonist in commercial exchange. Moreover, Siegelaub argues in *The AC*, that it is beneficial to the collectors as well, because the artist would be required to keep track of the work's provenance, among other things, which could result in a higher asking price for the work. This underlines how useful an open database, like the blockchain, can be: the time-consuming effort to maintain provenance records can be much more

¹⁰⁷ Seth Siegelaub, “Interview with Seth Siegelaub,” interview by Maria Eichhorn, *The Artist's Contract: Interviews with Carl Andre, Daniel Buren, Paula Cooper, Hans Haacke, Jenny Holzer, Adrian Piper, Robert Projansky, Robert Ryman, Seth Siegelaub, John Weber, Lawrence Weiner, Jackie Winsor* (Written, April 4, 2005), 266.

¹⁰⁸ Seth Siegelaub, “The Artist's Reserved Rights Transfer and Sale Agreement,” 43.

easily (and even automatically) traced. Considering what *The AC* looked to achieve in regards to protecting artists and supporting them in getting paid, it seems like Roeder's objections could be applied to this document as well, which has a heavy focus on art commerce and the managerial difficulties an artist's faces in selling and tracking their work.

In the early sixties, conceptual artists began to embrace legal and administrative language as a substitute for traditional visual content.¹⁰⁹ These artists were captivated by "bureaucratic forms and procedures," and the contract became an effective instrument to explore and express these concepts.¹¹⁰ It was also a means of drawing attention to the difficulties of being an artist in a market system and the demands in interfacing with the business side of the industry. The art duo N.E. Thing, Co. from Vancouver, for instance, identified as a corporation in order to focus, self-reflexively, on the administrative nature of art practice. Meanwhile, Kosuth contended that "Aesthetics... are conceptually irrelevant to art..."¹¹¹ He did not think that something needs to be aesthetic for it to be considered art, it is more about the context, and how it is described and positioned. This is similar to crypto art, as the visual dimensions of the image itself are not especially sophisticated or complex; it is more about the ideas it conveys and what it represents. The language Joe Looney uses to describe Rare Pepes echoes this view point. He says that, "the image isn't the most important thing... It's not the image so much as it's the whole legend of it."¹¹² The idea is what is most significant in both cases. Considering Kosuth's comments, the

¹⁰⁹ Benjamin Buchloh, "Conceptual Art 1962-1969: From the Aesthetic of Administration to the Critique of Institutions," *October* 55 (Winter 1990): 142.

¹¹⁰ *Ibid.*, 107.

¹¹¹ Kosuth, *Art After Philosophy*.

¹¹² Roeder, "People Are Paying Thousands of Dollars To Own Pictures of Pepe the Frog."

price of the work and the process of buying and selling can also be included in the definition of what gives an artwork meaning.

Siegelau and his peers, by centering their art practice on this kind of paperwork, challenged an art object's "visuality, commodity status, and its form of distribution," discharging its association with "transcendence."¹¹³ McKenzie Wark helps illuminate this method through his description of the shifting nature of information in his book, *The Hacker Manifesto* (2002). He explains that: "Information is immaterial, but never exists without a material support. Information may be transferred from one material support to another but cannot be dematerialized."¹¹⁴ In Wark's terms, conceptual artists translated the information traditionally present in aesthetic art objects to the contract. This is comparable to how crypto art works. It exists as code, which is "a linguistic model" in the form of a token, that is then translated into an image.¹¹⁵ Claire Bishop expands on this, stating: "The digital [is] ... a garbled recipe of numbers and letters, meaningless to the average viewer... Faced with the infinite multiplicity of digital files, the uniqueness of the art object needs to be reasserted in the face of its infinite, uncontrollable dissemination..." and this is what the blockchain is able to do.¹¹⁶ This technology visualizes these bits of codes, makes them unique and organizes them to be traced and tracked. Lippard once wrote that crucial to conceptual art was the examination of "information and systems."¹¹⁷ Today, the blockchain has precipitated an overhaul of the means by which

¹¹³ Benjamin Buchloh, "Conceptual Art 1962-1969," 107.

¹¹⁴ McKenzie Wark, *The Hacker's Manifesto* (Cambridge: Harvard University Press, 2004), 127.

¹¹⁵ Claire Bishop, "Digital Divide: Contemporary Art and New Media," *Artforum* 51, no. 1 (September 2012): <https://www.artforum.com/print/201207/digital-divide-contemporary-art-and-new-media-31944/>.

¹¹⁶ *Ibid.*

¹¹⁷ Lippard, "Escape Attempt," Xv.

information is transported and represented, while crypto art is the new method of examining and expressing this structure.

Buchloh posits that the “introduction of legalistic language and an administrative style of the material presentation of the artistic object,” began with Duchamp.¹¹⁸ The author cites 1944 as a seminal moment. This was the year Duchamp employed a notary to inscribe a statement of authenticity on his piece *L.H.O.O.Q.* (1919).¹¹⁹ The notary signed the work affirming that it was “the original ‘ready-made.’”¹²⁰ This was a practical move, validating the image’s authenticity, which could (ostensibly) increase its sale price. Simultaneously, this act challenged the definition of a “work of art,” since the object’s value was inscribed via a bureaucratic procedure.¹²¹ The blockchain works in comparable ways, it marks and guarantees an object’s legitimacy, implicitly bolstering its sale or resale price. This example illuminates the central role that provenance plays in the instantiation of value and how relevant it has been historically. Artists have been explicitly examining this relationship between value, authenticity and the definition of art for at least three quarters of a century.

Duchamp’s *Tzanck Check* (1919) and the *Monte Carlo Bond* (1924), for instance, serve to further contextualize the artwork of Siegelau and his peers. Duchamp created the *Tzanck Check* to pay his dentist, Daniel Tzanck.¹²² It was addressed to the “The Teeth’s Loan and Trust Company, Consolidated, 2 Wall Street” for one hundred and fifteen dollars, and looked like an

¹¹⁸ Benjamin Buchloh, “Conceptual Art 1962-1969,” 118.

¹¹⁹ *Ibid.*, 119.

¹²⁰ *Ibid.*, 118.

¹²¹ *Ibid.*

¹²² Olav Velthuis, “Duchamp’s Financial Documents: Exchange as a Source of Value,” *Tout-fait 1*, no. 2 (May 2000): http://www.toutfait.com/issues/issue_2/Articles/velthuis.html.”

ordinary cheque, except for its larger size and the fact that it was hand drawn.¹²³ The *Monte Carlo Bonds* also imitate a financial document, a bond in this case, which was issued by a company established by Duchamp, encouraging investment in his roulette gambling project.¹²⁴ The vouchers were signed by “Rose Sélavy, president,” and Marcel Duchamp, who was marked as one of Sélavy’s “administrators.”¹²⁵ Thirty bonds were issued but only twelve were sold, all for five hundred francs a piece and buyers were authorized to a yearly dividend of twenty percent.¹²⁶ The value of the bonds, just as the value of the cheque, were positioned in relation to the value of the object as an artwork, highlighting the murky definitions of art versus “non-art,” and art versus finance, inquiries that were continued by conceptual artists.¹²⁷ This demonstrates, in advance, how Rare Pepes work in relationship to Pepe Cash; indeed, there is a similar difficulty in deciphering between the currency and the art.

In *The Artist’s Contract: Interviews with Carl Andre, Daniel Buren, Paula Cooper, Hans Haacke, Jenny Holzer, Adrian Piper, Robert Projansky, Robert Ryman, Seth Siegelaub, John Weber, Lawrence Weiner, Jackie Winsor*, Maria Eichhorn argues that *The AC*, and other agreements like it, were meant to “put a stop to the commercialization of conceptual art and lead it back to its core—namely, its critique of the art market and the canon of bourgeois values.”¹²⁸ This epitomizes the common discourse around conceptual art, which was inspired by anti-capitalist sentiments. Yet, *The AC*, paradoxically, accentuated the commodity status of the artwork, making the economic transaction a focal point. Siegelaub admits that, “Art is a

¹²³ *Ibid.*

¹²⁴ *Ibid.*

¹²⁵ *Ibid.*

¹²⁶ *Ibid.*

¹²⁷ Benjamin Buchloh, “Conceptual Art 1962-1969,” 107.

¹²⁸ Maria Eichhorn, “Introduction,” 13.

commodity...with or without a contract...” thus, he “never said that [the contract] was not going to reaffirm the commodity nature of art...” only that it would “give control or possible control to the artist,” amongst these capitalistic conditions.¹²⁹ Although *The AC* supported dematerialization of the artwork, it also centered on artists and their demands, bolstering their personal identity as the contract is a tangible object that can help them to more simply interface with financial matters. This is akin to crypto art, it is just code, but the blockchain instantiates it, and allows it to exist and be commodified. When considering these examples, it appears Roeder’s criticisms are at least somewhat unjustified. Siegelaub looked to advocate for and empower his fellow creators through actively demanding compensation for them. Interfacing with finance and money is necessary in the artworld and cannot be ignored if artists are to be respected and honoured.

¹²⁹ Seth Siegelaub, “Interview with Seth Siegelaub.” 271.

Chapter 5: Conceptual vs. Crypto – Platforms and Contracts

At this point in the thesis, it is important to look at other platforms, besides *Rare Pepe Wallet*, that are used to facilitate artistic creation and the common threads among them. Through this process, I will bring in more examples of conceptual art to further examine the relationship between currency, the blockchain, art production and historical precedents. This is a useful exercise in understanding the crypto art landscape more fully.

Interfacing with the blockchain directly is virtually impossible if one does not have extensive technical training. As a result, there are several decentralized platforms that have emerged to make it simpler for artists to put their work on the blockchain. Some of the most notable are *Dada.NYC*, *Curio Cards* and *Rare Pepe Wallet* and it appears that a substantial amount of crypto art is created on or through sites like these. An artist submits their work to a platform, or makes their work right on the platform, under the guidelines that the site lays out and then waits for approval from the site's administrators. After the work is authorized, it lives on the blockchain forever. These platforms are often run or spearheaded by a single developer who believes in crypto art and wants to provide a way for people to (more) easily participate in the ecosystem.

What draws this art together is not what it looks like, but what it operates upon: the blockchain. With that being said, there are some common aesthetic features that crypto art works appear to embody. The content of crypto art can simply be a digital image that looks like a painting or photograph, which is what dominates *Dada.NYC*. Entries usually look like drawings or paintings which are made via DADA's "simple digital drawing tool... artists make drawings

on [their] virtual canvas, post it, and anyone around the world can reply with another drawing.”¹³⁰ Everything created on DADA is made directly on the platform; no art is ever uploaded. All content is also made to be collaborative, every drawing can be continued and replied to by someone in the community, meaning that crypto art can partake in a dialogue, in real time. It was launched in 2014 by the “artist-technologists” Beatriz Helena Ramo, Yehudit Mam and Abraham Milano.¹³¹ The work is able to be bought with Ethereum, and the site wants to create its own currency as well.¹³² Much of the work features bright colours and a central, large, bold image. This image structure makes sense considering that most of the work is made to be viewed through a computer or a phone, so it has to be simple and come across clear on a screen.

The developers and administrators possess notable influence, acting to some extent as gatekeepers, they set the ground rules for creative production. There is centralization in the sense that the art creation is taking place on a single platform and, somewhat like a gallery or museum, it is required to authorize the images. Schneider warns that “‘platform’ is a synonym for ‘middleman,’ and middlemen are inherently contradictory to any sincere effort to decentralize...”¹³³ Nevertheless, these platforms permit a user to create, exchange, and store value at their own accord and both Curio Cards and Rare Pepes take no commission. Even if the platform fails, a user will still own and control their tokens. Once a work is approved, the artist has the option to set any price they choose. Other notable platforms include the R.A.R.E.

¹³⁰ Dada.NYC, “A New Way For DADA. Part 1,” *Medium*, November 8, 2017, <https://medium.com/@PowerDada/a-new-way-for-dada-part-i-f3e11b4407>.

¹³¹ Kat Mustatea, “Can Blockchain Eliminate The Myth Of The Starving Artist?” *Forbes*, July 15, 2018, <https://www.forbes.com/sites/katmustatea/2018/07/15/can-blockchain-eliminate-the-myth-of-the-starving-artist/#1e9376846769>.

¹³² *Ibid.*

¹³³ Schneider, “The Gray Market”

network, Super Rare and CryptoCanvas although they are still in beta. Looking at the set-up of these platforms mirrors some of the main concerns around blockchain technology and centralization.

These sites give artists an opportunity who may not have the time or familiarity with finance, markets or technology to actually get their work on the blockchain directly. They are artist centric, permitting people to trade digitally scarce crypto art objects across borders, buyers have access to objects they would regularly not be able to purchase. This echoes Lippard's praises for what conceptual art was able to accomplish. She says, "[t]he easily portable, easily communicated forms of conceptual art made it possible for artists working out of the major art centers to participate... They could also carry their work with them as they moved around the country or world..."¹³⁴ Blockchain technology permits a different version of immaterial objects, but many of the same benefits apply.

It is useful to look at Sol Lewitt's *Wall Drawings* series, which began in 1967 to underline how dematerialized art practices, or art practices that lack or exceed the material parameters of a discrete object like a painting or sculpture, have been an economically viable option for artists in the past. LeWitt designed murals to be executed by someone or a group of people other than the artist, where these participants strictly follow the instructions and diagrams developed by the artist.¹³⁵ When purchasing a *Wall Drawing*, the buyer receives a signed certificate which is a legal document that authenticates the work in any later sale or transfer, and an accompanying drawing or plan with directions.¹³⁶ The owner of this piece of paper has the right to resell the

¹³⁴ Lippard, "Escape Attempt," xviii.

¹³⁵ Buchloh, "Conceptual Art 1962-1969," 140.

¹³⁶ Brenda Richardson, "Unexpected Directions: Sol Lewitt's Wall Drawings," in *Sol LeWitt: A Retrospective*, ed. Gary Garrels (New Haven: Yale University Press, 2000), 37.

plan, and the right to commission Lewitt's wall-drawing team, or people of their choosing, to execute his work.¹³⁷ LeWitt was able to make his work available for exhibitions, while still reserving the right to sell its "exchange value," leading to an incredibly fruitful business model.¹³⁸ The contract allows for the art object to be almost fully immaterial, accelerating its transportability, simple replication and exchange as well as making damage or theft exceedingly unlikely.¹³⁹ These are all factors that make the work tremendously attractive to museums and collectors. The *Wall Drawings* can be positioned as disruptive of "property-based" art markets, but can also be understood as an extremely efficient container for commercial value.¹⁴⁰ This example underscores how Rare Pepes, as well other platforms that assist in users making immaterial work, have precedent. It highlights some of the upsides of immateriality which include simple storage, transfer and access from across the world which can accelerate buying and selling. Roeder questions why someone would spend money "on something that doesn't tangibly exist... why in the world would anyone buy a Rare Pepe?... After all, the only thing you really own when you buy a Rare Pepe is a digital token..."¹⁴¹ But this is quite similar to how Lewitt is operating in this series.

Lewitt appeared not to be concerned with garnering a commission for the resales of his work, having found another method to continuously bring in income, essentially "lending" out his works while still retaining rights to them. However, one of the main benefits of crypto art is its

¹³⁷ John Webber, "Sol LeWitt: The Idea, The Wall Drawing and Public Space," in *Sol LeWitt: A Retrospective*, ed. Gary Garrels (New Haven: Yale University Press, 2000), 96.

¹³⁸ *Ibid.*, 91.

¹³⁹ *Ibid.*

¹⁴⁰ Andre Miller-Keller, "Varieties or Influences: Sol LeWitt and The Arts Community," in *Sol LeWitt: A Retrospective*, ed. Gary Garrels, (New Haven: Yale University Press, 2000), 82.

¹⁴¹ Roeder, "People Are Paying Thousands of Dollars To Own Pictures of Pepe the Frog."

ability to garner payment on subsequent sales. These platforms take minimal or no commission and artists are paid on subsequent sales. According to Bailey, when an artist sells an artwork on DADA, “on the first sale, 70% goes to the artist and 30% goes to DADA. The artist gets 30% for every additional sale of that work, with the seller getting 60% and DADA getting 10%.”¹⁴² The investors benefit too, as fees and the cost of transactions are minimal. This is a defining feature of crypto art, made feasible by blockchain technology, which creates conditions that were not previously possible. The technology can implement the rewarding of artists and can disintermediate publishers and galleries to a certain extent. Artists have a technical means to engage in self advocacy and self-protection around payments for their work via the blockchain. This appears to be part of what Siegelaub was attempting to do with *The AC*, and the blockchain just automates the process.

Siegelaub looked to institute a payment mechanism for artists. But he seemed to have miscalculated the resistance to *The AC*’s adoption, as the majority of the art world rejected the agreement.¹⁴³ Its short-lived relevance echoes the general optimism surrounding the revolutionary possibilities of conceptual art and how most of this sentiment was never realized. This exposes how difficult it was (and still is) to successfully institute and formalize artist’s rights during financial transactions and art sales. The power that collectors, patrons and galleries have only confirms the degree to which the actor with more wealth ultimately dictates the conditions of exchange. Amy Whitaker and Roman Kräussl in their essay “Democratizing Art Markets: Fractional Ownership and the Securitization of Art” lay out how art sales usually take

¹⁴² Jason Bailey, “The Blockchain Art Market Is Here,” *Artnome*, December 27, 2017.

<https://www.artnome.com/news/2017/12/22/the-blockchain-art-market-is-here>.

¹⁴³ Maria Eichhorn, “Introduction,” 12.

place.¹⁴⁴ Initially, “the artist typically consigns the work to their dealer or gallery. Only when an artwork has sold, the artist and dealer split the proceeds, usually fifty-fifty. When an artwork is subsequently sold in the ‘secondary market...’” the artist sees no payment, “...only the collector and the selling agent(s) receive the proceeds of the sale.”¹⁴⁵ This standard set up punctuates how smart contracts can be useful for artists, as payment can be built in at the point of sale and resale, which can be kept track of publicly.

Art contracts, especially ones that deal with subsequent payment, can be extraordinarily difficult to enforce. Carl Andre sold approximately one hundred works using Siegelau’s document, but he could not recall a single time that a buyer sent him any portion of the resale price.¹⁴⁶ He shares that, in his experience, *The AC*, under American law, is essentially unenforceable.¹⁴⁷ Adrian Piper has faced similar difficulties. She drafted the *Solo Exhibition Agreement* in 1997 and the last three pages of this contract are a revised version of Siegelau’s agreement, as she removed many of its articles.¹⁴⁸ She did not require the buyer to forward her a percentage of the resale profits or her approval of her work’s public exhibition because these conditions are tremendously difficult to impose and, as she describes, “are not worth the time and energy.”¹⁴⁹ Her exclusion of these clauses stresses the difficulty artists face in taking legal action to protect themselves and their work, even when contracts are involved.¹⁵⁰ Roeder laments

¹⁴⁴ Whitaker and Kräussl, *Democratizing Art Markets*.

¹⁴⁵ *Ibid.*, 3-4.

¹⁴⁶ Carl Andre, “Interview with Lawrence Weiner,” interview by Maria Eichhorn, *The Artist’s Contract: Interviews with Carl Andre, Daniel Buren, Paula Cooper, Hans Haacke, Jenny Holzer, Adrian Piper, Robert Projansky, Robert Ryman, Seth Siegelau, John Weber, Lawrence Weiner, Jackie Winsor*, (Written, April 18, 1998), 191.

¹⁴⁷ *Ibid.*

¹⁴⁸ Maria Eichhorn, “Introduction,” 18.

¹⁴⁹ Adrian Piper, “Interview with Adrian Piper,” interview by Maria Eichhorn, *The Artist’s Contract: Interviews with Carl Andre, Daniel Buren, Paula Cooper, Hans Haacke, Jenny Holzer, Adrian Piper, Robert Projansky, Robert Ryman, Seth Siegelau, John Weber, Lawrence Weiner, Jackie Winsor* (Written, April 22, 1998), 199.

¹⁵⁰ *Ibid.*

that “the fetishization of art’s prices” can cause, “the emptying of its higher virtues,” but it is important to recognize that most of the profit does not go to the artists; rather, standard profit distribution tends to uphold a traditional art system—one in which most artists are exploited.¹⁵¹

One of the most compelling passages in Piper’s contract was the “Discounts to Purchasers” clause, which reads: “No single work by the artist shall be sold by the dealer at a percentage discount...since it already is subject to the 50% off black artists discount and the 25% off women artists discount.”¹⁵² The inclusion of this article indicates how the enforcement of contracts and sales can be impacted by the artist’s race and gender. Piper’s agreement is a reminder of the privilege that goes along with using contracts and the requirements of spending excess time and money enforcing a legal document’s terms. Many (or most) artists cannot afford to turn off buyers within an incredibly competitive art market, so a contract becomes too big of a risk to institute, even if it is meant to protect them. As much as contracts can be seen as a critique of the economy and art institutions, many of them do not recalibrate traditional power relationships. In fact, the people who use contracts regularly are found at the top of typical art world hierarchies, as artists who are struggling to make sales, which are more likely to be women and people of colour, may be deterred from using them.

Because smart contracts are normalized and proliferate within crypto art, buyers may become more comfortable with the notion of remunerating an artist upon resale. As they get easier to use and operate, this can help with their further adoption by artists. Additionally, with identity of the artist being a less relevant factor in crypto art, as most sales take place online without the artist

¹⁵¹ Roeder, “The Blockchain Is Just Another Way to Make Art All About Money.”

¹⁵² *Ibid.*, 196.

signing their work, crypto art may have the potential to minimize discrimination issues around race and gender, by being automated and anonymous. Although, according to a report by Forbes in December of 2017, “Only 5% to 7% of all cryptocurrency users are women...it is seen that only a mere 1.76% of the entire Bitcoin community are women.”¹⁵³ This means that there is still the potential these smart contracts will only help people at the top, but there may be sufficiently more room to work around barriers.

¹⁵³ Jackie Lam, “Where Are the Women In the Blockchain Network?” *Forbes*, December 10, 2017, <https://www.forbes.com/sites/lamjackie/2017/12/10/where-are-the-women-in-the-blockchain-network/#47a78095530a>.

Chapter 6: The Creations and Creators of Crypto Art

It is important to expand my survey of crypto art beyond platforms that allow artists to create work directly on them. I want to broaden my reference pool of work, analyzing earlier and alternative examples of fully digital crypto art pieces as well as work that combines physical art with blockchain technology. This will strengthen my argument in regards to the relation between crypto art and market mechanisms, while further revealing common discourse around blockchain and cryptocurrency. It can also help give the reader a better understanding of the scope of crypto art as well as the trends and cultural dynamics that are present in the space.

The first project I want to focus on is the *Plantoid* (2015), which was developed by Primavera De Filippi, the founder of the art collective Okhaos. She actively explores the relation between the material and immaterial aspects of crypto art. Meant to mimic the functions and operations of a plant, the Plantoid “lives” and “reproduces using Bitcoin micropayments.”¹⁵⁴ Every Plantoid has its own Bitcoin wallet, and spectators can pay the object in the cryptocurrency, via a QR code, and it will respond by displaying “colours and sounds.”¹⁵⁵ When it has collected enough Bitcoin, the plant “commissions, through smart contracts [on the Ethereum blockchain,] another artist or group of artists to produce another plant,” funding this through the Bitcoin it has collected.¹⁵⁶ Each person who paid the Plantoid is asked to vote on the proposals, by sending micro-transactions to the Bitcoin blockchain, where each address represents a vote for a different

¹⁵⁴ Houlgrave, “#BlockchainArt.”

¹⁵⁵ *Ibid.*

¹⁵⁶ *Ibid.*

candidate.¹⁵⁷ The smart contract will then automatically tally the responses to identify the artist with the most votes.¹⁵⁸ To fully engage with this work, the audience has to interface with cryptocurrency and smart contracts, familiarizing them with these applications.

This work is an attempt to atomize patronage and aestheticize the blockchain.¹⁵⁹ Artists will want to “maximize the dissemination and encourage the creation of derivative works in order to amplify their profits and exposure,” as each Plantoid sends a one percent royalty to its “parent” plant.¹⁶⁰ This model is parallel to how blockchain works, where the value is in the network—or in getting as many people to participate as possible—as this ensures higher security. This system counters much of how art is positioned, focused on exclusivity and limited runs, including Rare Pepes. This is an indication of the diverse means in which a crypto art work can accrue value, introducing new dynamics to an art system that is usually based on regulating supply.

The Plantoid also complicates the link between art and property, in that each iteration, as De Fillippi has coded it, remains “autonomous” from the paying spectator, who appears to act as more of a patron than a buyer of commodities. According to De Fillippi, the leading principle of the Plantoid is to create “...algorithmic entities that are (1) autonomous, (2) self-sustainable, and (3) capable of reproducing themselves...”¹⁶¹ This language parallels the rhetoric around the crypto community, which is dominated by discussions of achieving “liberty” and “autonomy.” Of course, De Fillippi’s classification seems to be oversimplified, as the Plantoid relies on people

¹⁵⁷ Primavera De Filippi, “Plantoid – The Birth of a Blockchain-Based Lifeform,” in *Artists Re:Thinking the Blockchain*, ed. Ruth Catlow, March Garnett, Nathan Jones and Sam Skinner (Liverpool: Liverpool University Press, 2017), 58.

¹⁵⁸ *Ibid.*, 58-59.

¹⁵⁹ Lotti, *Contemporary Art, Capitalization and The Blockchain*, 104.

¹⁶⁰ De Filippi, “Plantoid – The Birth of a Blockchain-Based Lifeform,” 60-61.

¹⁶¹ *Ibid.*, 51.

interacting with it in a number of ways, which she does acknowledge briefly. But her ultimate goal is to have “the Plantoid... illustrate the inner workings of these autonomous systems, so that people can better understand the potential benefits and challenges of this powerful, emergent technology.”¹⁶² She wants it to be an educational apparatus, but its positioning mirrors the ways in which blockchain technology and the solutions it proposes may be too generalized and distorted. The work is positioned as an answer to the classical patronage, as her design makes commissioning artworks more efficient. However, by eliminating art institutions and patrons other problems are introduced around access and technical literacy.

There are other instances of artists making work outside of decentralized platforms as well. Sarah Meyohas created her own cryptocurrency called *Bitchcoin* in 2015, entitling holders to redeem those tokens for her work. The name is a nod to the male domination in the crypto and technology world. When the currency was first released, each Bitchcoin was sold for one hundred American dollars and to purchase a complete print cost twenty-five Bitchcoins.¹⁶³ Thereafter, the price for each coin shifts according to the demand in relation to her artwork.¹⁶⁴ Someone was able to buy these coins from her, at her gallery opening for the project or on the website, which also states that “Bitchcoins will be available for trade on a currency exchange.”¹⁶⁵ She studied business at University of Pennsylvania's Wharton School and worked at a hedge fund before she studied art, so she is exceptionally privileged around her exposure to financial

¹⁶² *Ibid.*, 52.

¹⁶³ Sarah Meyohas, “Bitchcoin,” accessed April 28, 2018, <http://www.sarahmeyohas.com/about/>.

¹⁶⁴ *Ibid.*

¹⁶⁵ *Ibid.*

markets.¹⁶⁶ This suggests that she may have been more comfortable with instituting a token and dealing with sales directly, compared to other artists who do not have that background.

This example is unlike the others I have focused on, as one is able to buy the tokens to exchange for “tangible” works of art which are completely separate from the coins. The currency is a means to invest in her photography before actually purchasing a physical piece. “25 square inches of photography backs every Bitchcoin,” and “[f]or every new release of the currency she sets aside an unframed archival chromogenic print in a bank vault...”¹⁶⁷ When the print is locked up, “an equivalent number of Bitchcoins...is then released into circulation...” and “[w]hen a Bitchcoin-backed print is purchased those coins are destroyed...”¹⁶⁸ Meyohas considers it an asset backed cryptocurrency, but the buyers must have faith in several elements – Bitchcoin, the photograph and Meyohas as an artist. The website describes the process: “Bitchcoin allows art collectors to invest directly in Sarah Meyohas as a value producer rather than investing in the artwork itself, her as a laborer. For investors, Bitchcoin is like any currency tradable on the open market. It’s a bet on Sarah Meyohas...”¹⁶⁹ This language is quite metaphorical, as it does not seem like this currency would be able to be exchanged for goods other than Meyohas’ work. Still, this project reveals how cryptocurrency can be used as a strategic method to build interest and loyalty from potential patrons and leverage a physical art practice. I think this kind of application does have tremendous potential and can point to ways that artists can utilize

¹⁶⁶ Priscilla Frank, “Bitchcoin: The Artist-Made Currency That Just May Change How We Invest Art,” *Huffington Post*, June, 12, 2017, https://www.huffingtonpost.ca/entry/bitchcoin-sarah-meyohas_n_6812432.

¹⁶⁷ Meyohas, Bitchcoin, <http://www.sarahmeyohas.com/about/>.

¹⁶⁸ *Ibid.*

¹⁶⁹ *Ibid.*

cryptocurrency in funding their art production. However, I do not think this is where the majority of the potential for crypto art lies, which is in completely immaterial works.

A series from Max Dovey is an example of work that exists only in digital form. He created trading cards featuring Ethereum mining rigs that can be traded on the Ethereum blockchain. These trading cards have photos of “...real Ethereum mining rigs that were posted on forums between 2015 and 2017,” which he used without asking.¹⁷⁰ Each card features a “picture of the mining rig and its ‘stats’ such as its hash rate, power draw [and] a description of the rig...”¹⁷¹ The rigs come in many variations, pointing to the grassroots nature of cryptocurrency, ranging from professional looking to poorly concocted “DIY” miners.¹⁷² Each card contains a unique hash that can be used to validate ownership.¹⁷³ The imagery is self-consciously digital, sourcing all its material from online forums and assembling the cards via digital applications.

This example suggests that crypto art usually demands a lot of its viewers, at least a certain entry level fluency around crypto technology, as this series pictures specialized equipment. These cards are quite site specific, the site being the crypto and blockchain community, which lives online. The works have the potential to alienate viewers on a content level, the symbolism requires some general understanding of blockchain technology. Although the style is one that references a general Internet and meme aesthetic—such that it can be grasped by people who are regulars on chatrooms and social media—much of the work also excludes people on a technical level, as it is difficult to figure out how to buy and sell unless you are already familiar with how

¹⁷⁰ Daniel Oberhaus, “These Ethereum Mining Rig Trading Cards Are the Nerdiest Thing We’ve Ever Seen.” *Motherboard*, March 28, 2018, https://motherboard.vice.com/en_us/article/paxa5v/ethereum-mining-rig-trading-cards-cryptocurrency?utm_source=mbtwitter.

¹⁷¹ *Ibid.*

¹⁷² *Ibid.*

¹⁷³ *Ibid.*

to buy and sell cryptocurrency. The majority of the discourse around crypto art is that it is accessible but this is an over simplification, as there are several barriers to entry.

Bailey believes that crypto art is “democratic” and “geographically agnostic.”¹⁷⁴ In theory, on platforms like *DADA*, *Curio Cards* and *Rare Pepe Wallet* anyone can submit an entry, anywhere in the world. Nonetheless, there are severe obstacles around access and knowledge, illustrative of the power structures already in place around technology usage. The blockchain is open source, meaning anyone can build on it, but one must have superior skills to work with it. These conditions align with much of tech world’s utopic understanding about how they can revolutionize the world with their inventions and empower “everyone.” Nevertheless, someone’s ability to access the Internet is often dependent upon economic status, geographic location, gender and race. Considering these conditions, words like “open source” and “decentralized” can be misunderstood to mean “inclusive” and “equal.” There is tremendous value for these tools to allow someone to produce and collect who would not otherwise be able to, but it is crucial to acknowledge possible impediments in getting involved.

These hurdles are reflective of the typical buyer of crypto art too. The collector is generally a “technologist” or “investor” that entered into cryptocurrency in its infancy and made substantial amounts of money.¹⁷⁵ The audience for this kind of art is not a typical fine art collector, but people from the crypto community. The demand for crypto art is bolstered by larger market forces around cryptocurrency itself, closely connected to market mechanisms and crypto prices.

¹⁷⁴ Bailey, “What Is CryptoArt?”

¹⁷⁵ *Ibid.*

The better the market is doing, the more demand can be expected for crypto art works. This correlation is underlined by the rise (and fall) of Crypto Kitties.

Crypto Kitties might be the most famous crypto art project and is often credited for bringing crypto art into the mainstream. Many people consider them under the umbrella of crypto art but are also commonly described as “crypto collectibles,” a title that expands their classification beyond just simply works of art, into other forms of asset classes. It features cats that can be traded, collected and bred with one another. Each one has its own DNA and cannot be replicated. The capabilities of this project illustrate the dynamic nature and possibilities of crypto art. Because these cats are immaterial, existing only on the blockchain, they are able to have certain functions that are not possible with physical art—they are able to reproduce and multiply.

They gained popularity in December 2017, attracting so much traffic that the transactions caused a significant amount of congestion on the Ethereum blockchain.¹⁷⁶ According to a report from *Coindesk* in June 2018, Crypto Kitties traffic had decreased “98.5% from its all-time high,” when measuring “daily active users.”¹⁷⁷ The article continues, “[i]n December, the traded volume per day was roughly \$2.3Mn, which has now fallen to about \$21k daily. The median price of sold kitties peaked at \$41 and now is constantly at about \$5.”¹⁷⁸ I speculate that the drop off is a result of several factors. Most notably, it points to the larger market forces at play, as

¹⁷⁶ Kai Sedgwick, “Blockchain Games Have Got a Long Way To Go,” *Bitcoin.com*, June 9, 2018, https://news.bitcoin.com/blockchain-games-have-got-a-long-way-to-go/?utm_source=ActiveCampaign&utm_medium=email&utm_content=Your+Daily+Bitcoin+News&utm_campaign=June+10%2C+2018+Daily+Newsletter.

¹⁷⁷ *Ibid.*

¹⁷⁸ *Ibid.*

cryptocurrency prices have declined over seventy percent¹⁷⁹ since their all-time high in January 2018.¹⁸⁰ The higher the prices for cryptocurrency, the higher the prices for crypto art.

This dip also highlights that crypto art is a developing space, where first movers may not be the most successful as there are several problems that arise around usability and staying power. These groups and their success, even if it is fleeting, can encourage other companies to come along and refine existing technologies and ideas. User experience is an issue as well, blockchain art works (and/or games) are extremely slow, taking a long time to process transactions. A cofounder of Crypto Kitties, Benny Giang, has talked about how difficult it is to convert interest in the cats into *actually* buying one.¹⁸¹ The company recommends reading a twelve page manual before purchasing a cat, underscoring the technological skill that is needed to interface with this project.¹⁸² The user base is also eighty-five percent male, which is suggestive of the larger crypto sphere which is exceedingly male dominant.¹⁸³ Even with all these detractions, a single cat sold for \$140,000 at a live auction that took place at Ethereum in May 2018, a major cryptocurrency conference.¹⁸⁴ The unevenness sale prices typifies the uncertainty in the crypto space, it will not be a smooth road in terms of prices or adoption.

Kevin Abosch, is a notable blockchain artist who has gained significant traction in the industry because of the high prices paid for his work. Perhaps his most famous piece, *Forever Rose* (2018) is a completely immaterial work, existing in the form of tokens. It sold for one

¹⁷⁹ This is the amount as of August 4, 2018.

¹⁸⁰ Sedgwick, "Blockchain Games Have Got a Long Way To Go."

¹⁸¹ Giang and Wolfson, "Digital Kitties & Decentralized Artificial Intelligence with Benny Giang."

¹⁸² *Ibid.*

¹⁸³ *Ibid.*

¹⁸⁴ Rachel Martin and David Green, "CryptoKitties: Using The Blockchain For Cat Pictures," *Morning Edition, NPR*, Podcast, audio, May 31, 2018, <https://www.npr.org/2018/05/31/615718566/cryptokitties-using-the-blockchain-for-cat-pictures>.

million American dollars in February of 2018, what many believe to be the highest price ever paid for a crypto art work to date.¹⁸⁵ Each buyer bought one tenth of the artwork, and the proceeds were donated to charity.¹⁸⁶ No photograph was sold, only a single token, divisible by one decimal place. This demonstrates the possibilities of “fractional ownership.” Artists do not need a single buyer to purchase an entire work, he or she may be able to acquire shares or a portion of it instead. This may make it easier to sell, as many people can pitch in for a higher price tag. It also means that artists can take an equity stake in their own work.¹⁸⁷ Whitaker and Kräussl conducted a study where they tracked the initial prices of Jasper Johns and Robert Rauschenberg artworks.¹⁸⁸ They found “that if Johns and Rauschenberg had retained 10% equity in their work when it was first sold, the returns to them when the work was resold at auction would have outperformed the US S&P 500 by between 2 and 986 times.”¹⁸⁹ This indicates the alternative methods of buying and selling that immateriality and/or tokenization allows, and how it can be of tremendous benefits to artists.

Abosch believes that *Forever Rose* represents “the purest form of art—it’s the idea, without the baggage of a vessel.” The idea is central, not the material manifestation of it, which echoes Sol LeWitt’s famous quote from 1965, “The idea becomes a machine that makes the art.”¹⁹⁰

¹⁸⁵ Olga Kharif, “Crypto Artists Unlock Value With Lambos, Kitties and Blood,” *Bloomberg*, May 10, 2018, <https://www.bloomberg.com/news/articles/2018-05-10/lambos-kitties-and-blood-decoding-value-in-cryptocurrency-art>.

¹⁸⁶ Jason Bailey and Kevin Abosch, *Dank Rares*, Podcast audio, April 29, 2018, <http://dankrares.com/interview-with-artist-kevin-abosch>.

¹⁸⁷ Maecenas, a commercial business, also follows this logic, using blockchain technology to allow buyers to purchase ownership shares in artworks that are registered to their platform, with ownership rights managed on the blockchain. In June 2018, in partnership with a commercial gallery, the company sold a forty-nine percent stake, in “14 Small Electric Chairs,” 1980 by Andy Warhol, priced at \$5.6 million, divided into fractional shares.

¹⁸⁸ Whitaker and Kräussl, *Democratizing Art Markets*, 1.

¹⁸⁹ *Ibid.*

¹⁹⁰ Lippard, “Escape Attempt,” Xiv.

Kosuth adopts this sentiment too, writing that “propositions of art are not factual, but linguistic in character...”¹⁹¹ He argues that proclaiming something as “art,” makes it so.¹⁹² This means that the bounds of digital creation via code can be greatly expanded and tokens can be included in it.

Abosch explains, “You meet people in the crypto world who throw millions into coins backed by nothing, but don’t understand how a piece of art has any value... Then you meet people in the art world who don’t understand why you would invest money in art that has no physical manifestation.”¹⁹³ This underscores the questions around economic value and how it can be stored, expressed and accrued in both currency and art. It demonstrates that art can be a helpful model in actually understanding currency as well as how much the dynamics of crypto, greatly reveal the innerworkings of both the financial and art system.

Many people dismiss cryptocurrency as they are convinced that it has no backing. Common responses to these objections are that the value lies in the capabilities of the technology. A substantial amount of people cannot trust their national government’s currency, and cryptocurrency provides a way for them to not get wiped out financially via inflation, theft or the seizing of bank accounts. A significant amount of the world is also unbanked. This means they are automatically excluded from their country’s (and the world’s) financial systems, and a decentralized network that can transfer and store currency allows them to be included because they can conduct transactions from their mobile phone. Additionally, blockchain technology facilitates the sending of money across borders without going through banks and paying exorbitant fees, no matter how small the transaction is. Some people will never be convinced that

¹⁹¹ Kosuth, *Art After Philosophy*.

¹⁹² *Ibid.*

¹⁹³ Sophie Haigney, “When Crypto Meets Conceptual Art, Things Get Weird,” *The New York Times*, June 5, 2018, <https://www.nytimes.com/2018/06/05/arts/design/cryptocurrency-blockchain-art-kevin-abosch.html>.

this technology has value, but I think it is essential to highlight how people are using this technology today and certain ways it is put to use that were not possible before.

Finally, I want to discuss *Spells of Genesis*, which was created in 2014 and is widely considered to be the first crypto art project. The blockchain is the “inspiration for the storyline,” as well as the method by which the work’s “cards” are stored.¹⁹⁴ The official website refers to it as “a trading card game, bringing deck collection and strategy, along with arcade-style gaming aspects.”¹⁹⁵ Trading cards are a dominant template within crypto art, exemplarily of the murkiness between what can be considered a game versus an artwork, especially online. It is also indicative of a typical user and creator of crypto art. Gamers were one of the initial groups to understand cryptocurrency and crypto art, as many popular video and computer games have networks where users trade digital items or digital currency. Since this is common within the gaming ecosystem, they were able to quickly grasp the concept and value of the blockchain. The content of this game and/or artwork exemplifies a typical aesthetic and plot within the gaming world. It is fantasy based, where the user challenges the “tyrannical” Emperor Daryen of Sayosia and protect their turf from his advances.

Joe Looney thinks that the game did not take off because it was not user friendly and you could not make your own cards.¹⁹⁶ This stresses how meaningful it is within the crypto community to be able to actively participate in the ecosystem. Having the ability to produce one’s own art, personalized to their interests and current events is essential. This is similar to how Internet memes work: they are a highly collaborative form that relies on users sharing them

¹⁹⁴ “Spells of Genesis,” *Spells of Genesis*, accessed January 12, 2018, <https://spellssofar.com/>.

¹⁹⁵ *Ibid.*

¹⁹⁶ Jason Bailey and Joe Looney. “Interview with Joe Looney.”

with one another. I would also suggest that the game may not have caught on because there was no real opportunity for profit. You were able to play it for free and it does not appear that a user could financially capitalize on this game. This is different than most works in the crypto art field, which ultimately prioritize profitability and commerce. This example, and its failure to catch on, explicitly expresses this condition, which is why I have chosen to conclude with it.

Chapter 7: Conclusion

This thesis has not provided a full survey of crypto art, given that the field is changing rapidly as I write. In the minutes that it will have taken me to upload this paper to the *cIRcle* repository, new projects will have been created and cryptocurrency prices might have plummeted or shot up, which may dramatically change the entire landscape. What I hope this essay achieves is the setting out of a clear framework of understanding of the genre, especially in relationship to larger financial forces and conceptual art. I want this piece of writing to support the reader in engaging more deeply and actively with both crypto art and the blockchain going forward. My work has tracked this phenomenon and I have sought to balance the content, plotting crypto art along an art historical trajectory while observing its deeply entrenched and self-conscious relationship to the market.

Examining crypto art reveals some significant conclusions about the commercial art system as well as providing a gateway into understanding the cryptocurrency and blockchain worlds. Because crypto art is intimately tied to finance, Roeder is convinced that this is a reason to criticize it and question its validity as a movement. Yet, when examining conceptual art and its legacy, it appears there are several similarities in what it was attempting to do. Through the use of immaterial concepts, conceptual artists challenged the definition of art and the importance of aesthetics, placing greater significance on the work's abstract idea. Looking to the most notable predecessor of conceptual art, Marcel Duchamp, demonstrates further the logic that would become manifest in crypto art. Duchamp muddied the waters between finance and art, challenging art's definition in the process, accenting its reliance on and relationship to money. Roeder's anxiety about crypto art seems short sighted. The technology is new, but the problems

that crypto art addresses, including the challenging to the definition of art, its visual nature, and its connection to larger financial forces, have been explored previously. In fact, much of the modern art system is built upon these observations. Roeder has more of an issue with the art industry as a whole, which crypto art is only an expression—as someone like Steyerl suggests.

Looking at blockchain through the legacy of conceptual art can also help demonstrate the need for blockchain and its capabilities, most notably the built-in payment structure for artists. The usefulness of this application is indicated by the difficulty in enforcing *The AC*. This reveals how incredibly time consuming and challenging it is for artists to track the provenance of their work and demand residuals from future sales. Blockchain technology can support artists in garnering payment for their work and tracing its circulation, which may dramatically shift how an artwork is sold as well as how artists conduct business and interface with collectors and galleries. Even if you, the reader, believe Roeder’s argument, that all crypto art has done is expediate capitalism, when looking at the complications of the conceptual artists encountered when enforcing *The AC*, it highlights how it can be incredibly useful. Artists can guarantee payment for themselves and reach buyers more easily.

Lippard believes that the model that conceptual artists laid out in their practice can be taken up today because they demonstrated how there are tremendous opportunities to challenge the status quo by engaging with objects that are “not yet recognized as art.”¹⁹⁷ Crypto art, through utilizing the blockchain, pushes the definition of art and who can create it, even further—completely severing it from the conventional art market and museum system. Potential crypto art producers are not barred by geography or cultural privilege, only Internet access and knowledge

¹⁹⁷ Lippard, “Escape Attempt,” Xxi.

of cryptocurrency. It also opens up new ways of buying and selling that can support the artist and be a gateway into understanding cryptocurrency and blockchain in general.

Looking at conceptual art and its history confirms that many of the objections around crypto art are unfounded, and the major role that blockchain technology can play in supporting's artist's rights, affirming a notable use case for this developing technology. I am hopeful for the future of the blockchain and what it will be able to facilitate with regards to art creation, fashioning alternative landscapes for artists to produce their work and be paid for it. As the blockchain becomes more common in everyday transactions, so too, I would argue, will crypto art be able to demonstrate its usefulness in protecting the artist and expanding the possibilities of art production.

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