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## Are CryptoPunks Copyrightable?

Brian L. Frye

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# Are CryptoPunks Copyrightable?

Brian L. Frye\*

## *Abstract*

*Larva Labs's CryptoPunks NFTs are iconic. Created in 2017, they were among the first NFTs on the Ethereum blockchain. Four years later, they are among the most valuable, selling for anywhere from \$200,000 to millions of dollars.*

*The CryptoPunks collection consists of 10,000 NFTs, each of which is associated with a unique CryptoPunks image. Everyone knows who owns each CryptoPunks NFT. The Ethereum blockchain provides indelible proof. But people disagree about who owns - and who should own - the copyright in the CryptoPunks images. Most CryptoPunks NFT owners believe they should own the copyright in the image associated with their NFT, or at least have the right to use it. Larva Labs believes it owns the copyright in all of the images and entered a licensing deal with United Talent Agency based on its ownership of the CryptoPunks brand and copyrights.*

*Color me skeptical. I'm not sure anyone owns the copyright in the CryptoPunks images, because I'm not sure they're copyrightable in the first place. And I suspect Larva Labs is also worried about the copyrightability of the CryptoPunks images. After all, they complain about copyright infringement, but don't file infringement actions.*

*In this essay, I explain how copyright works, what it protects, and why. I analyze the copyrightability of the CryptoPunks images. And I reflect on what it means for the CryptoPunks and V1 Punks NFTs, as well as the NFT market in general. tl;dr: It's unclear, and that might be a problem for Larva Labs, but might also be an opportunity.*

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\* Spears-Gilbert Professor of Law, University of Kentucky College of Law. Thanks to JuliusCrypto, Tyler T. Ochoa, and Guy A. Rub for their helpful comments and suggestions.

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## I. INTRODUCTION

Larva Labs's CryptoPunks NFTs (non-fungible tokens) are iconic. Created in 2017, they were among the first NFTs on the Ethereum blockchain.<sup>1</sup> Four years later, they are among the most valuable, selling for anywhere from two hundred thousand to millions of dollars.<sup>2</sup>

The CryptoPunks collection consists of 10,000 NFTs, each of which is associated with a unique CryptoPunks image.<sup>3</sup> Anyone can determine who owns each CryptoPunks NFT.<sup>4</sup> The Ethereum blockchain provides indelible proof. But people disagree about who owns—and who should own—the copyright in the CryptoPunks images.<sup>5</sup> Most CryptoPunks NFT owners believe they should own the copyright in the image associated with their NFT, or at least have the right to use it. Larva Labs believes it owns the copyright in all of the images and entered a licensing deal with United Talent Agency based on its ownership of the CryptoPunks brand and copyrights.<sup>6</sup>

Color me skeptical. I'm not sure anyone owns the copyright in the CryptoPunks images because I'm not sure they're copyrightable in the first place. And I suspect Larva Labs is also worried about the copyrightability of the CryptoPunks images. After all, they complain about copyright infringement, but don't file infringement actions.

In this Article, I explain how copyright works, what it protects, and why. I analyze the copyrightability of the CryptoPunks images. And I reflect on what it means for the CryptoPunks and V1 Punks NFTs, as well as the NFT market in general.

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1. Lucas Matney, *The Cult of CryptoPunks: Ethereum's 'oldest NFT project' May Not Actually Be The First, But It's The Wildest*, TECHCRUNCH (Apr. 8, 2021), <https://techcrunch.com/2021/04/08/the-cult-of-cryptopunks/>.

2. See LARVA LABS: CRYPTOPUNKS, <https://www.larvalabs.com/cryptopunks> (last visited Mar. 21, 2022).

3. *Id.*

4. *Id.* (“10,000 unique collectible characters with proof of ownership stored on the Ethereum blockchain.”).

5. See James McQuillan, *CryptoPunks Faces Social Blow-Back Over NFT Copyright Licenses*, BLOCKCHAIN GAMER (Dec. 7, 2021), <https://www.blockchaingamer.biz/news/16732/cryptopunks-faces-social-blow-back-over-nft-copyright-licenses/> (discussing CryptoPunk's copyright issues).

6. See MK Manoylov, *CryptoPunks Creator Larva Labs Signs Up With Major Talent Agency UTA*, THE BLOCK (Aug. 31, 2021), <https://www.theblockcrypto.com/linked/116217/cryptopunks-creator-larva-labs-signs-up-with-major-talent-agency-uta>.



## II. WHAT ARE CRYPTOPUNKS?

In a nutshell, CryptoPunks is a collection of 10,000 non-fungible tokens or “NFTs” on the Ethereum blockchain, which Matt Hall and John Watkinson of Larva Labs LLC created in June 2017. And it was a game changer. Arguably the first “true” NFT collection, CryptoPunks helped inspire not only the creation of the term NFT, but also the ERC-721 standard commonly used to create NFTs on the Ethereum blockchain.<sup>7</sup> But even more importantly, it was the first NFT collection to really take off. While others had created NFTs, Larva Labs created a real market for NFTs.

CryptoPunks has a retro vibe, inspired by the style of both the 70s London punk scene and 90s cyberpunk, as well as 80s video games.<sup>8</sup> Each CryptoPunks NFT is numbered and associated with an image of an 8-bit sprite on a 24x24 matrix, which was automatically generated by an algorithm. All of the images consist of an abstracted face in right three-quarter profile. There are eleven different “types” of images: male or female in four skin tones, as well as alien, ape, or zombie. Each image also has from zero to seven additional attributes or “traits,” from a library of eighty-seven possible traits, including a beanie, a mohawk, or 3D glasses. The CryptoPunks algorithm created 10,000 unique CryptoPunks images, by assigning each image a unique set of type and traits.<sup>9</sup> It assigned different types and traits at different rates, making some combinations common and others rare.<sup>10</sup> Then, Larva Labs

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7. See William Entriken, Dieter Shirley, Jacob Evans & Nastassia Sachs, *EIP-721: Non-Fungible Token Standard*, ETHEREUM IMPROVEMENT PROPOSALS (Jan. 24, 2018), <https://eips.ethereum.org/EIPS/eip-721>.

8. *Id.*











9. LARVA LABS: CRYPTOPUNKS, *supra* note 3 (stating that there are 10,000 unique collectible characters).

10. A complete list of CryptoPunks types and traits and their frequency is available on the Larva Labs website. See LARVA LABS: TYPES AND ATTRIBUTES, *supra* note 14.

assigned each image to an NFT.<sup>11</sup>

### III. A BRIEF HISTORY OF CRYPTOPUNKS

#### Punk Types

Attribute	#	Avail	Avg Sale <sup>Ⓢ</sup>	Cheapest <sup>Ⓢ</sup>	More Examples
Alien	9	3	0	 23K€	
Ape	24	2	2.5K€	 4.46K€	
Zombie	88	5	1.04K€	 1.3K€	
Female	3840	478	76.34€	 72€	
Male	6039	852	85.19€	 68.95€	

12

When Larva Labs released CryptoPunks on June 12, 2017, anyone could claim a CryptoPunks NFT for free by paying the transaction cost or “gas fee” to mint it on the Ethereum blockchain, which at the time was about eleven cents.<sup>13</sup> Initially, no one was interested, and only a few dozen NFTs were claimed. But when Mashable published an article about CryptoPunks on June 16, 2017, suddenly everyone wanted one, and the entire collection was claimed in only a few hours.<sup>14</sup>

A secondary market in CryptoPunks NFTs emerged almost immediately. The day after the CryptoPunks collection was fully claimed, one CryptoPunks NFT sold for about \$3,500, and by a year later, an unusual alien CryptoPunks NFT sold for about \$16,000.<sup>15</sup> For a time, the market for CryptoPunks NFTs

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11. Initially, the CryptoPunks images were only stored off-chain, but in 2021, Larva Labs recorded the CryptoPunks images on the Ethereum blockchain. See *On-Chain CryptoPunks*, LARVA LABS, <https://www.larvalabs.com/blog/2021-8-18-18-0/on-chain-cryptopunks> (last visited Mar. 22, 2022).

12. LARVA LABS: TYPES AND ATTRIBUTES, *supra* note 14.

13. LARVA LABS: CRYPTOPUNKS, *supra* note 3 (“Originally, they could be claimed for free by anybody with an Ethereum wallet.”).

14. See Jason Abbruzzese, *This Ethereum-Based Project Could Change How We Think About Digital Art*, MASHABLE (June 16, 2017), <https://mashable.com/article/cryptopunks-ethereum-art-collectibles>. Apparently, Hall and Watkinson of Larva Labs minted about 1,000 CryptoPunks NFTs for themselves. See *10 Things To Know About CryptoPunks, The Original NFTs*, *supra* note 11.

15. Chloe Cornish, *CryptoKitties, CryptoPunks and The Birth of a Cottage Industry*, FIN. TIMES (June 5, 2018), <https://www.ft.com/content/f9c1422a-47c9-11e8-8c77-ff51caedcde6>.

was volatile but gradually trending upward. Then, in early 2021, the market exploded, and the price of a typical CryptoPunks NFT shot up to about \$30,000.<sup>16</sup> That's when traditional auction houses like Sotheby's and Christie's really got interested.<sup>17</sup> On May 11, 2021, Christie's auctioned a lot of nine rare CryptoPunks NFTs for almost \$17 million.<sup>18</sup> Suddenly, CryptoPunks were fine art.

As of February 2022, the lowest price for a CryptoPunks NFT was listed at about \$200,000.<sup>19</sup> At that time, there were about \$120 million in CryptoPunks NFT transactions per month. And total CryptoPunks NFT sales were over \$2 billion. The market for CryptoPunks NFTs is huge, predicated on nominal "ownership" of an 8-bit sprite.

#### A. *CryptoPunks & Their Discontents*

Many CryptoPunks NFT owners used their punk as their profile picture on various social media platforms, especially Twitter and Discord.<sup>20</sup> The phenomenal success of the CryptoPunks NFTs encouraged a slew of other NFT artists to create profile picture or "pfp" projects. The most successful of those CryptoPunks competitors is Yuga Labs's Bored Apes Yacht Club, a collection of 10,000 NFTs associated with images of cartoon apes drawn in a graffiti-style, with an assortment of types and traits of varying degrees of rarity, much like CryptoPunks.<sup>21</sup>

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16. See *10 Things To Know About CryptoPunks, The Original NFTs*, *supra* note 11 (stating that the average price for a CryptoPunks NFT in April 2021 was around \$30,412.40).

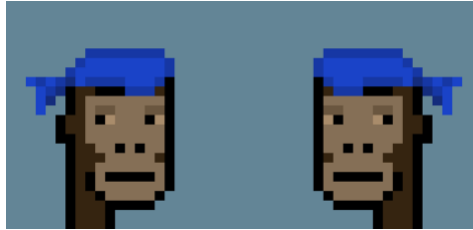
17. See Matney, *supra* note 2.

18. Ana Maria Celis, *Live Auction 20000 21st Century Evening Sale: Larva Labs(Est. 2005) 9 Cryptopunks: 2, 532, 58, 30, 635, 602, 768, 603 and 757*, CHRISTIE'S (May 10, 2021), <https://www.christies.com/lot/lot--6316969/>. See also *10 Things To Know About CryptoPunks, The Original NFTs*, *supra* note 11.

19. LARVA LABS: CRYPTO PUNKS, *supra* note 3 (stating that in February 2022, the lowest price Punk available was \$218,966.08).

20. See Matney, *supra* note 2 (noting that people use their NFT as their avatar on social media sites).

21. See *Bored Ape Yacht Club*, OPENSEA, <https://opensea.io/BoredApeYachtClub> (last visited Mar. 22, 2022).



L: Larva Labs, CryptoPunk 4156 (2017)  
R: Not Larva Labs, CryptoPhunk 4156 (2021)

### B. *Not Larva Labs & CryptoPhunks NFTs*

CryptoPunks NFTs have attracted many imitators. The funniest of these is the CryptoPhunks NFT collection, created by an anonymous developer in June 2021.<sup>22</sup> The CryptoPhunks collection consists of 10,000 NFTs, each of which is associated with a CryptoPunks image facing left, rather than right.<sup>24</sup> Yes, the CryptoPhunks developer copied the entire collection of 10,000 CryptoPunks images, flipped them, and sold NFTs associated with those flipped images. And it worked. As of August 2022, the lowest price CryptoPhunks NFT is listed at 0.5 ETH or about \$1000.<sup>25</sup>

Unsurprisingly, Larva Labs was unhappy about the CryptoPhunks NFTs. The CryptoPhunks developer started selling CryptoPhunks NFTs on June 14, 2021 from their own website.<sup>26</sup> But most secondary sales of NFTs occur on OpenSea, and on June 21, OpenSea delisted all CryptoPhunks NFTs.<sup>27</sup> After briefly relisting the CryptoPhunks NFTs, OpenSea delisted them again on June 29, and Larva Labs filed a Digital Millennium Copyright Act (DMCA)

<sup>22</sup> In May 2022, Twitter user @ZAGABOND admitted to being the creator of the CryptoPhunks NFT collection. ZAGABOND.ETH (@ZAGABOND), Twitter (May 9, 2022, 4:23 PM), at <https://twitter.com/ZAGABOND/status/1523775812893249537>. See also ZAGABOND, *A Builder's Journey*, Mirror (May 9, 2022), at <https://mirror.xyz/0x1Cb8332607fba6A780DdE78584AD3BFD1eEB1E40/yG8rI1lpQGLPhZch0kxYRjKTtA9rAL51zg-ZrURyAc>.

<sup>24</sup> NOT LARVA LABS: CRYPTOPHUNKS, <https://notlarvalabs.com/cryptophunks> (last visited Mar. 24, 2022).

<sup>25</sup> *Id.*

<sup>26</sup> See *Frequently Asked Questions (FAQ) & Phunk History*, NOT LARVA LABS, <https://notlarvalabs.com/faq-history> (last visited Mar. 24, 2022).

<sup>27</sup> *Id.*



takedown notice with OpenSea on June 30, alleging copyright infringement.<sup>28</sup> Oddly, OpenSea briefly relisted the CryptoPunks NFTs on July 3, despite the DMCA takedown notice, then delisted them for good on July 13.<sup>29</sup> In response to OpenSea's delisting of the CryptoPunks NFTs, CryptoPunks NFT owners formed a new organization they called Not Larva Labs, and created a market devoted to CryptoPunks NFTs, which the CryptoPunks developer supported.<sup>30</sup> CryptoPunks NFTs are still traded on the Not Larva Labs website and other NFT marketplaces.<sup>31</sup> While Larva Labs obviously thinks the CryptoPunks NFTs are infringing, it hasn't filed an infringement action against Not Larva Labs.<sup>32</sup> Interesting.



Larva Labs, V1 Punk 8745 (2017)

### C. VI *CryptoPunks* NFTs

One of the reasons *CryptoPunks* NFTs are especially popular among NFT collectors is that *CryptoPunks* was one of the first NFT collections on the

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28. *Id.* “The DMCA notice and takedown process is a tool for copyright holders to get user-uploaded material that infringes their copyrights taken down off of websites.” *What Is The DMCA Notice and Takedown Process*, COPYRIGHT ALL., <https://copyrightalliance.org/faqs/what-is-dmca-takedown-notice-process/> (last visited Mar. 24, 2022). See generally 17 USC 512.

29. See BowTied SizeLord, *Let's Get Phunky: CryptoPunks and Web3 Censorship*, BOWTIED ISLAND (Dec. 27, 2021), <https://bowtiedisland.com/lets-get-phunky-cryptopunks-and-web3-censorship/>.

<sup>30</sup> See Phunk is Punk, Phunks Knowledge Base, at <https://phunks.gitbook.io/knowledge-base/readme/phunk-is-punk>.

31. NOT LARVA LABS: CRYPTOPUNKS, *supra* note 31 (“After being censored from the largest NFT platforms and abandoned by the original devs, a renegade group of community builders took it upon themselves to create their own Phunk marketplace.”).

32. See *infra* Part VI. (exploring possible reasons why Larva Labs is not enforcing their copyright through litigation).

Ethereum blockchain.<sup>33</sup> Many NFT collectors highly value “historical” NFTs that represent “firsts” in the NFT marketplace. Accordingly, “NFT archeologists” are always looking for forgotten NFT projects they can rescue from oblivion and sell.<sup>34</sup>

Before Larva Labs created the CryptoPunks NFT collection it released on June 12, 2017, it released a collection of 10,000 CryptoPunks NFTs with a defective contract that allowed the buyer of the NFT to withdraw the funds deposited in the contract, but not the seller.<sup>35</sup> As a consequence, the NFTs were impossible to sell, because buyers got to keep their money. Why own an NFT you can’t sell? When Larva Labs realized there was a defect in the contract, they created a new collection of 10,000 CryptoPunks NFTs, and disowned the original, defective NFTs.<sup>36</sup>

Eventually, NFT archeologists discovered the original collection of CryptoPunks NFTs and devised a way to transact in them despite the defective contract, by “wrapping” them in a new ERC-721 smart contract.<sup>37</sup> These wrapped NFTs from the original CryptoPunks NFT release became known as “V1 Punks,” and were associated with CryptoPunks images on a purple background, to distinguish them from so-called “V2 Punks.”<sup>38</sup>

Unfortunately, Larva Labs continued to disown the V1 Punks and objected to their sale.<sup>39</sup> In response to Larva Labs’s objections, OpenSea (the largest NFT marketplace) prohibited the sale of wrapped V1 CryptoPunks NFTs.<sup>40</sup> However, LooksRare, a smaller NFT marketplace, welcomed the

33. Jolene Creighton, *Bored Ape Yacht Club Creators Just Bought CryptoPunks and Meebits*, NFT NOW (Mar. 11, 2022), <https://nftnow.com/news/bored-ape-yacht-club-creators-just-bought-cryptopunks-and-meebits/#:~:text=CryptoPunks%20was%20launched%20in%20June,brands%20in%20the%20NFT%20world.> (“[CryptoPunks was] one of the first NFT collections on the Ethereum blockchain.”)

34. See generally Jonathan Torrey, *A Conversation With NFT Archeologists—Wait, What The Heck Is That?*, ONE37PM (Aug. 24, 2021), <https://www.one37pm.com/nft/art/nft-archaeology-gabagool-adam-mcbride-interview>.

35. See Jon Torrey, *Breaking Down V1 CryptoPunks: The First CryptoPunks Release*, START WITH NFTS (Jan. 15, 2022), at <https://www.startwithnfts.com/posts/breaking-down-v1-cryptopunks-the-first-cryptopunks-release> (last updated Mar. 10, 2022).

36. *Id.*

37. See Andrew Hayward, *CryptoPunks Controversy: Creators Apologize for 'V1' Ethereum NFT Sales*, DECRYPT (Feb. 24, 2022), <https://decrypt.co/92155/cryptopunks-controversy-creators-apologize-v1-ethereum-nft>.

38. See *A Little Story*, CryptoPunks V1, <https://www.v1punks.io/about/> (last visited Mar. 24, 2022).

39. See Hayward, *supra* note 43.

40. Lachlan Keller, *OpenSea Delists CryptoPunks V1 After DMCA Notice From Larva Labs*,



*A. Copyrightable Subject Matter*

Copyright automatically protects “original works of authorship” as soon as they are “fixed in any tangible medium of expression.”<sup>44</sup> These requirements for copyright protection are vanishingly low. According to the Supreme Court, “originality requires independent creation plus a modicum of creativity.”<sup>45</sup> A work is “independently created” so long as it is not actually copied from another work, and it’s sufficiently “creative” so long as anything distinguishes it from other, similar works.<sup>46</sup> And fixation simply requires the creation of a copy of a work in a form that enables perception or reproduction of the work, including a digital file.<sup>47</sup>

So, if you create a digital image without copying another digital image, then you own a copyright in the digital image you created. It’s that simple. You own a copyright because you created an original pictorial work fixed in the tangible medium of a digital file. You don’t have to do anything else to be a copyright owner. In fact, you even own a copyright in every version of the digital image you created.

Of course, copyright owners can register their works with the United States Copyright Office for a fee.<sup>48</sup> Registration gives copyright owners certain benefits, including the right to sue for copyright infringement.<sup>49</sup> But registration isn’t necessary for copyright ownership, which vests in the author at the moment of fixation.<sup>50</sup>

Copyright doesn’t just protect original works of authorship, it also

44. 17 U.S.C. § 102(a).

45. *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 346 (1991).

46. *Id.* at 345 (“Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity. To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark, ‘no matter how crude, humble or obvious’ it might be.”) (internal citations omitted).

47. 17 U.S.C. § 101 (“A work is ‘fixed’ in a tangible medium of expression when its embodiment in a copy or phonorecord, by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.”).

48. 17 USC § 408.

49. *Copyright in General*, COPYRIGHT.GOV, <https://www.copyright.gov/help/faq/faq-general.html> (last visited Mar. 25, 2022) (discussing the benefits to registering a copyright with the United States Copyright Office).

50. *See generally* Nicole E. Pottinger & Brian L. Frye, *Registration is Fundamental*, 8 IP THEORY 1 (2018) (describing the copyright registration process).

protects all of the original elements of a work of authorship.<sup>51</sup> Any part of a work that independently satisfies the originality requirement is independently protected by copyright. So, copyright can and does protect the parts of a literary or pictorial work, just as much as it protects the work as a whole, and copyright can and does protect the relationships among those parts, so long as they are also original.

### B. *Copyright & Digital Images*

Copyright protects original works of authorship, irrespective of the medium in which a copy of the work is reproduced.<sup>52</sup> So, copyright can protect a pictorial work whether it's fixed in the form of a painting, drawing, print, photograph, video, or digital file.<sup>53</sup> But it has to be original. In other words, it can't be a copy of another work, and it has to have enough "creativity" to qualify for copyright protection.

Typically, a pictorial work easily qualifies for copyright protection, unless it's a copy of another work. Almost every independently created pictorial work contains enough "creativity" to make it "original." But there are some exceptions—typically works that consist of minimal visual elements. For example, in *Star Athletica, LLC v. Varsity Brands*, the Supreme Court held that copyright can protect the pattern printed on a cheerleading uniform, but declined to determine whether the specific patterns at issue were sufficiently original for copyright protection.<sup>54</sup> Similarly, many works of minimal and conceptual art probably lack any original elements that qualify for copyright protection.<sup>55</sup> Copyright probably cannot protect works that

51. *Feist v. Rural*.

52. 17 U.S.C. § 102(a).

53. 17 U.S.C. § 101 ("Pictorial, graphic, and sculptural works' include two-dimensional and three-dimensional works of fine, graphic, and applied art, photographs, prints and art reproductions, maps, globes, charts, diagrams, models, and technical drawings, including architectural plans. Such works shall include works of artistic craftsmanship insofar as their form but not their mechanical or utilitarian aspects are concerned; the design of a useful article, as defined in this section, shall be considered a pictorial, graphic, or sculptural work only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.").

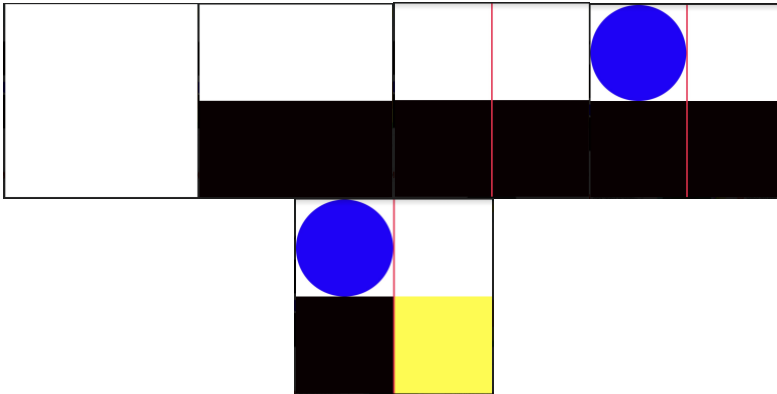
54. *Star Athletica, LLC v. Varsity Brands, Inc.*, 137 S. Ct. 1002, 1012 n.1 (2017) ("We do not today hold that the surface decorations are copyrightable. We express no opinion on whether these works are sufficiently original to qualify for copyright protection.").

55. See generally Guy A. Rub, *Owning Nothingness: Between the Legal and the Social Norms of the Art World*, 2019 BYU L. REV. 1147 (2020) (observing that many works of minimal and conceptual art seem to lack any copyrightable elements).

consist of a single color or a simple pattern of colors and lines.

Why not? There are many ways of conceptualizing the problem, but they all boil down to the idea-expression dichotomy, which provides that copyright can only protect particular expressions, not abstract ideas.<sup>56</sup> Usually, the idea-expression dichotomy isn't an issue for pictorial works because they are particular expressions by their very nature. For better or worse, the hand of the artist is always apparent. But very simple pictorial works can become indistinguishable from abstract ideas.

An illustration might be helpful. In 2020, the artist and lawyer Alfred Steiner created the work of conceptual art *How Much is Enough?*, which consists of a copyright registration application for a series of ten digital images.<sup>57</sup> The first image is a blank white square and each subsequent image adds a visual element. The Copyright Office responded to Steiner's application by registering images eight through ten but refusing to register images one through seven because they "do not possess the requisite creative authorship to sustain a copyright registration."<sup>58</sup>

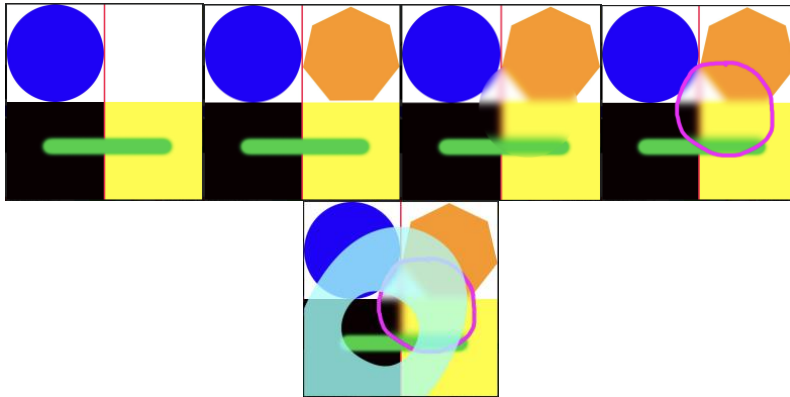



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56. 17 U.S.C. § 102(b) ("In no case does copyright protection for an original work of authorship extend to an idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."); see also *Ideas Are Not Protected By Intellectual Property Law But Expressions Are: Analysis*, PLEADERS INTELLIGENT LEGAL SOL. (Oct. 3, 2021), <https://blog.ipleaders.in/ideas-are-not-protected-by-intellectual-property-law-but-expressions-are-analysis/> (describing how the idea-expression dichotomy functions in copyright).

57. See generally *Alfred Steiner*, <https://alfredsteiner.com/> (last visited Mar. 25, 2022).

58. Letter from US Copyright Office to Alfred Steiner (Jan. 14, 2021) (on file with author).



Alfred Steiner, *How Much is Enough? 1.1-1.10* (2020)

In other words, the Copyright Office found that images one through seven lacked sufficient creativity for copyright protection, but images eight through ten had sufficient originality for copyright protection. How did the Copyright Office make that determination? It didn't explain, so we can't know. But we can infer that the Copyright Office found a combination of simple geometric forms ineligible for copyright protection.<sup>59</sup>

This is a problem for pictorial works that consist of simple digital images like 8-bit sprites. Obviously, copyright cannot protect a digital image that consists of a single pixel. And the same is surely true of a digital image that consists of a small number of pixels. The question is how many pixels a digital image needs to qualify for copyright protection.

Unfortunately, the answer is unclear. While courts have decided many cases involving 8-bit video games, all of those cases have depended on the overall appearance and play of the games in question, rather than the similarity of particular sprites.<sup>60</sup> In other words, while copyright can definitely protect 8-bit video games, it is unclear whether and when copyright can protect particular 8-bit sprites. Presumably, the

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<sup>59</sup> See generally Pottinger & Frye, *supra* note 56 (surveying Copyright Office Review Board opinion letters).

<sup>60</sup> See, e.g., *Atari, Inc. v. Amusement World, Inc.*, 547 F.Supp. 222, 230 (D. Md. 1981) (finding no infringement); *Atari, Inc. v. N. Am. Philips Consumer Elec. Corp.*, 672 F.2d 607, 620–21 (7th Cir. 1982) (finding infringement); *Data E. USA, Inc. v. Epyx, Inc.* 862 F.2d 204, 210 (9th Cir. 1988) (finding no infringement); *Capcom U.S.A., Inc. v. Data E. Corp.*, 1994 WL 1751482, at \*15 (N.D. Cal. Mar. 16, 1994) (finding no infringement); *Tetris Holding, LLC v. Xio Interactive, Inc.*, 863 F.Supp.2d 394, 415 (D.N.J. 2012) (finding infringement).

copyrightability of an 8-bit sprite depends on its complexity. But what is complexity and how much is required?

The copyrightability of an 8-bit sprite cannot depend only on its size. After all, copyright cannot protect an 8-bit sprite that consists of a uniformly colored square no matter how many pixels it includes. But at the same time, copyrightability cannot depend only on appearance. Especially for small images, there is a limited number of appealing and expressive shapes. It has to be a judgment call, and it has to depend on the circumstances.

The benchmark is obvious. Authors should be able to claim copyright ownership of an 8-bit sprite only if and when it does not limit the ability of other authors to create their own 8-bit sprites. After all, the purpose of copyright is to protect particular works of authorship, not to enable authors to monopolize a medium. That means copyright in 8-bit sprites should be quite narrow indeed. The more limited the palette, the more others need and deserve access to it. As Locke observed, one should be able to claim ownership only “where there is enough, and as good, left in common for others.”<sup>61</sup>

## V. COPYRIGHT IN NFTS

Copyright doesn’t and can’t protect NFTs. Why not? An NFT is just encrypted data on a blockchain, typically consisting of a URL pointing to a digital image file.<sup>62</sup> Copyright can’t protect a URL, which is the digital equivalent of an entry in a white pages telephone directory.<sup>63</sup> And copyright can’t protect a URL minted on a blockchain. There’s no original element for copyright to protect.

What copyright can protect is any original element associated with an NFT. If an NFT includes any data other than an URL, copyright can protect any original elements of the data.<sup>64</sup> If an NFT consists of a URL pointing to

61. John Locke, *SECOND TREATISE OF GOVERNMENT* (1689).

62. See Robyn Conti & John Schmidt, *What Is An NFT? Non-Fungible Tokens Explained*, FORBES ADVISOR (updated Feb. 15, 2022, 12:15 PM), <https://www.forbes.com/advisor/investing/nft-non-fungible-token/> (discussing the basics of NFTs).

63. See generally *Feist Publ’n, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 361 (1991) (holding that copyright cannot protect an entry in a white pages telephone directory).

64. While the overwhelming majority of NFTs only contain a URL, some NFT art exists entirely “on chain.” For example, the generative works created by 0xDEAFBEEF consist of code written on the Ethereum blockchain. See 0xDEAFBEEF, <https://www.deafbeef.com/> (last visited Mar. 26, 2022). NFTs of this kind probably contain copyrightable subject matter.



a digital image file, copyright can protect any original elements of the digital image. And, if a computer program is used to create the digital images associated with an NFT, then copyright can protect any original element of the computer program.

#### A. *CryptoPunks & Copyright*

Does Larva Labs own a copyright in CryptoPunks? It depends what you mean. Copyright can't protect the CryptoPunks NFTs, but probably does protect the CryptoPunks algorithm, and may or may not protect the CryptoPunks images. Why?

Copyright can't protect the CryptoPunks NFTs because they don't include any copyrightable elements. Originally, the CryptoPunks NFTs consisted of a URL pointing to a CryptoPunks image stored off-chain.<sup>65</sup> Obviously, those NFTs weren't copyrightable, because they didn't include any copyrightable elements. Copyright can't protect a URL. Now, the CryptoPunks images are also stored on the Ethereum blockchain.<sup>66</sup> But that is just to say the CryptoPunks NFTs point to a CryptoPunks image stored on-chain. Copyright doesn't care where an NFT points, it cares what an NFT contains. The CryptoPunks NFTs didn't and can't change. They didn't include any copyrightable elements when they were created, and they don't include any copyrightable elements now.

Copyright can protect the CryptoPunks algorithm, because copyright protects computer programs as literary works.<sup>67</sup> Obviously, copyright can't protect the concept of an algorithm that generates digital images, because it can't protect abstract ideas.<sup>68</sup> It probably can't even protect the idea of an algorithm that generates digital images of 8-bit sprites with a punk aesthetic. But it can and does protect a particular computer program that generates particular images in a particular way. In other words, copyright can't protect the concept of a generative art algorithm, but it can protect a particular algorithm.<sup>69</sup>

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65. See Cornish, *supra* note 22 (stating that CryptoPunks were initially stored off-chain).

66. See Cornish, *supra* note 22 ("Larva Labs announced in August 2021 that it had placed all the artwork for the existing CryptoPunks on the Ethereum blockchain.")

67. See 17 U.S.C. § 102(a).

68. See 17 U.S.C. § 102(b).

69. *But see* Google LLC v. Oracle America, Inc., 593 U.S. \_\_\_\_ (2021) (holding that certain uses of "application programming interfaces" (APIs) are protected by the fair use doctrine and implying that APIs may not be copyrightable subject matter).

*B. Copyright in the CryptoPunks Images*

The hard question is whether copyright can and does protect the CryptoPunks images. The answer is probably yes on both counts, but there is a reasonable argument that it does not and should not. After all, the CryptoPunks images are 8-bit sprites, and Larva Labs is claiming copyright ownership of at least 10,000 images, maybe a lot more, depending on how you interpret their copyright claim.

What has Larva Labs told us about its copyright claim? Not much. Larva Labs registered CryptoPunks with the United States Copyright Office on March 4, 2018 as a “2-D artwork” in an electronic file.<sup>70</sup> Presumably, it registered a digital image consisting of the images associated with all 10,000 CryptoPunks NFTs. That’s understandable because it enabled Larva Labs to register all of the CryptoPunks images in a single application. While the Copyright Office does accept group registrations, it will not accept 10,000 separate images in a single application, so registering all of the CryptoPunks images individually would have required many separate applications.<sup>71</sup> The copyright registration process is non-public, with the exception of Copyright Office Review Board opinion letters, but the Copyright Office’s decision to grant the CryptoPunks registration application is unsurprising. An image consisting of 10,000 8-bit sprites easily contains enough originality to qualify for copyright protection.

But the image Larva Labs registered isn’t all it claims to own. Larva Labs clearly believes it owns a copyright in all 10,000 CryptoPunks images individually, not merely as one of 10,000 elements in a digital image, because has submitted DMCA takedown notices for the use of individual CryptoPunks images. That is a broader claim, and one the Copyright Office hasn’t necessarily endorsed. After all, Larva Labs submitted and the Copyright Office registered a single image containing all 10,000 CryptoPunks images. That single image is what the Copyright Office evaluated for registrability. It didn’t consider and didn’t decide whether individual CryptoPunks images are registrable. Which leaves an open question: What should copyright protect, and should copyright owners be able to claim so many similar images?<sup>72</sup>

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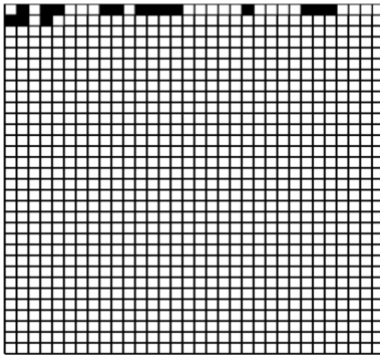
70. Larva Labs LLC, CryptoPunks, U.S. COPYRIGHT OFF., Registration No. VA0002116706 (registered Mar. 4, 2018).

71. See *Help: Group Registration of Unpublished Works*, COPYRIGHT.GOV, <https://www.copyright.gov/eco/help/group-unpublished/> (last visited Mar. 26, 2022) (discussing how to do a group registration with the United States Copyright Office).

72. See Margot E. Kaminski & Guy A. Rub, *Copyright’s Framing Problem*, 64 UCLA L. REV.

Let's break it down. CryptoPunks images use a 24x24 matrix of 576 pixels.<sup>73</sup> That's a lot of potential images! As John F. Simon, Jr.'s digital artwork *Every Icon* (1997) memorably demonstrates, the number of possible combinations of pixels in a 36x36 matrix is effectively infinite.<sup>74</sup> The same is true of a 24x24 matrix. So, copyright should protect the CryptoPunks images?

### Every Icon



**Given:**  
An icon described by a 32 X 32 grid.

**Allowed:**  
Any element of the grid to be colored black or white.

**Shown:**  
Every icon.

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**Owner:**  
John F Simon Jr

**Edition Number:**  
Artist's Proof

**Starting Date:**  
January 14, 1997, 9:00:00 pm

Not so fast. Combinations of pixels don't all have the same visual effect. The vast majority are meaningless. Only a tiny fraction are sufficiently semiotically loaded to resemble something and convey information. Those are the combinations people actually want to use and own. There are still a lot of them, but not nearly as many as the raw numbers suggest.

What's more, copyright can only protect original works of authorship.<sup>75</sup> That means copyright can't protect elements of 8-bit sprites that represent abstract ideas, rather than particular expressions. It can't protect elements of 8-bit sprites copied from other 8-bit sprites. And it can't protect elements of 8-bit sprites unless they have enough creativity to be original. So, copyright in 8-bit sprites has to be pretty narrow. Only a limited number of desirable images are possible. Many potential images are

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1102, 1163–66 (2017) (discussing how copyright registration informs the definition of the “work”).

73. See LARVA LABS: CRYPTO PUNKS, *supra* note 3.

74. See John F. Simon, Jr., *Every Icon* (1997), <http://www.numeral.com/appletsoftware/eicon.html>. In 2021, *Every Icon* was reimaged as an NFT project. See *Project #1: Every Icon*, EATWORKS (2021), <https://www.eatworks.xyz/>.

75. See 17 U.S.C. § 102(a).

too abstract to be useful. Many others have already been created, and aren't original. And many of the remaining images are too simple to be copyrightable.

Still, copyright surely protects at least some 8-bit sprites. There are so many possible images, and it is amazing how little visual information is required to convey meaning. Small changes make a big difference. Digital artists have created innumerable 8-bit sprites. Most of them are forgettable, but some of them are iconic, and everyone knows the difference.

If Larva Labs had created one CryptoPunks image, it would almost certainly own a valid copyright. Hell, even if it had created dozens of CryptoPunks images, it would still almost certainly own valid copyrights in all of them. For example, Alfred Steiner successfully registered a copyright in CryptoSkull #7347.<sup>76</sup> If you can register a CryptoSkull image, you can register a Cryptopunk image in spades.



Alex Slayer, CryptoSkull #7347 (2019)

But Larva Labs didn't just create and claim copyright ownership of a few images. Instead, it created 98 graphic elements (11 types and 87 traits), algorithmically generated 10,000 images consisting of different combinations of those elements and claimed copyright ownership of all of the images it created.<sup>77</sup> That's a lot of copyrighted images.

Is it a problem? Maybe. The Copyright Office has long held that copyright can't protect works produced by a machine without the intervention

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76. CryptoSkull #7347 (game token), Registration No. VA2-293-128 (April 1, 2022).

77. See LARVA LABS: CRYPTOPUNKS, *supra* note 3.

of a human author.<sup>78</sup> And, the Copyright Office Review Board recently refused to register a work generated entirely algorithmically—without human intervention.<sup>79</sup>

Now, copyright scholars pretty uniformly agree that copyright can protect works generated by a computer.<sup>80</sup> And it stands to reason. Computers do what they are told, and someone has to tell them what to do. If a computer creates a work, then someone told the computer to create it, so the person who instructed the computer is the author and owns the copyright. Easy.

And yet, if you instruct a computer to create works, it can create an awful lot of them. Apes with typewriters will take a while to write John Keats's *Ode on a Grecian Urn*, but if you call the apes computers, everything they bang out is an original work of authorship protected by copyright. Give them a decent algorithm and they'll generate more content than anyone could possibly consume, if they cared to try. These days, the internet is full of it.<sup>81</sup>

Is that all Larva Labs is claiming? While Larva Labs used the ninety-eight graphic elements it created to generate 10,000 unique CryptoPunk images, it could have used those same elements to automatically generate an impossibly large number of unique images, the set of all possible combinations of types and traits.<sup>82</sup> As far as I know, it didn't actually create

78. U.S. Copyright Off., Compendium of U.S. Copyright Off. Prac. § 313.2 (3d ed. 2021) (“[T]he Office will not register works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author. The crucial question is ‘whether the “work” is basically one of human authorship, with the computer [or other device] merely being an assisting instrument, or whether the traditional elements of authorship in the work (literary, artistic, or musical expression or elements of selection, arrangement, etc.) were actually conceived and executed not by man but by a machine.’”) (quoting U.S. COPYRIGHT OFFICE, REPORT TO THE LIBRARIAN OF CONGRESS BY THE REGISTER OF COPYRIGHTS 5 (1966)).

79. See UNITED STATES COPYRIGHT OFFICE REVIEW BOARD, SECOND REQUEST FOR RECONSIDERATION FOR REFUSAL TO REGISTER A RECENT ENTRANCE TO PARADISE, at 3 (2022) (“After reviewing the statutory text, judicial precedent, and longstanding Copyright Office practice, the Board again concludes that human authorship is a prerequisite to copyright protection in the United States and that the Work therefore cannot be registered.”).

80. See, e.g., Pamela Samuelson, *Allocating Ownership Rights in Computer-Generated Works*, 47 U. PITT. L. REV. 1185 (1986); James Grimmelmann, *There's No Such Thing as a Computer-Authored Work – And It's a Good Thing, Too*, 39 COLUM. J. OF L. & THE ARTS 403 (2016); Annemarie Bridy, *Coding Creativity: Copyright and the Artificially Intelligent Author*, 5 STAN. TECH. L. REV. 1 (2012); Annemarie Bridy, *The Evolution of Authorship: Work Made by Code*, 39 COLUM. J. OF L. & THE ARTS 395 (2016).

81. Cf. Brian L. Frye, *The Plagiarism Trilogy*, 111 BANJA LUKA CRIM. L. REV. 125 (2021) (presenting three essays on the theme “the illegitimacy of plagiarism norms” commissioned from essay mills).

82. See LARVA LABS: TYPES AND ATTRIBUTES, *supra* note 14.

those potential images, but does it matter? They exist in theory, and I know exactly how each one would look based on its type and traits.

Surely, Larva Labs also claims copyright ownership of all of those potential CryptoPunk images, even though it hasn't actually created them. But how? You can't own the copyright in a pictorial work until you fix a copy of it in a tangible medium.<sup>83</sup> If you haven't actually created a potential CryptoPunk image, you haven't fixed a copy of it in a tangible medium, so you can't own a copyright in it.



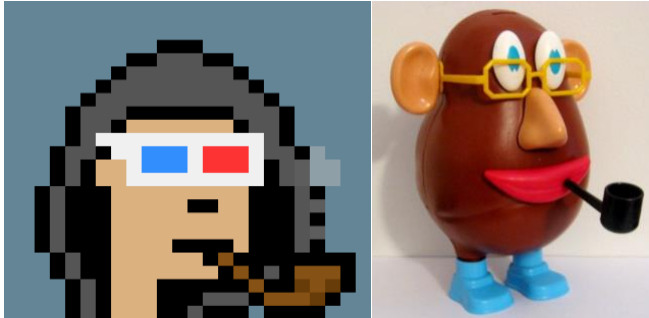
So, if I create a CryptoPunk image using a combination of type and traits that Larva Labs hasn't actually used, do I own a copyright in the image I created? After all, I independently created the image, without copying it from any existing CryptoPunk image. And it is just as "creative" as any other combination of type and traits. Maybe I've created an original work of authorship and fixed it in a tangible medium.

Of course not. As Larva Labs would be sure to observe, the copyrightability of a CryptoPunks image doesn't depend on its particular combination of type and traits, but on the originality of the elements used to create it. You can't become the copyright owner of a particular CryptoPunks image simply by creating a combination of type and traits, any more than you become the copyright owner of a particular Mr. Potato Head by adding eyes, a nose, and a mouth.<sup>84</sup>

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83. See 17 U.S.C. § 102(a).

84. But see Tyler T. Ochoa, *Who Owns an Avatar?: Copyright, Creativity, and Virtual Worlds*, 14 VAND. J. ENT. & TECH. L. 959, 976 (2012) (observing that copyright might protect an avatar based on a template, if the template enabled enough customization).



In other words, Larva Labs isn't really claiming copyright ownership of particular CryptoPunks images. It's implicitly claiming copyright ownership of the graphic elements used to create CryptoPunks images, and, by extension, all of the CryptoPunks images those elements can be used to create.



CryptoPunk 1424 (cigarette, headband, nerd glasses, goatee)

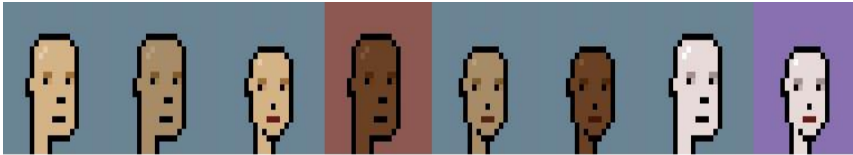
That might be a problem. Many of the graphic elements created by Larva Labs and used to create the CryptoPunks images are quite simple, and probably do not qualify for copyright protection. For example, there's only a limited number of ways to depict a cigarette, headband, or glasses in a 24x24 matrix of pixels.<sup>85</sup> Some of the graphic elements consist of only a few pixels, like a clown nose, buck teeth, or a mole.<sup>86</sup> Copyright can't protect such simple images as pictorial works. If anything lacks the "creativity" required for copyright protection, it's a square of four red pixels. What's more, if there's

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85. See LARVA LABS: TYPES AND ATTRIBUTES, *supra* note 14.

86. See LARVA LABS: TYPES AND ATTRIBUTES, *supra* note 14.

only one way or a limited number of ways to represent an object in a particular medium, then the merger doctrine applies, and none of them are protected.<sup>87</sup>



CryptoPunks Types

Even the CryptoPunks types are minimalistic representations of human heads, on the cusp of copyrightability.<sup>88</sup> While there's more than one way to represent a face in three-quarters profile in a 24x24 matrix of pixels, the number of available options is limited. What's more, some options are more desirable than others. It's not enough to say that others can still create similar images. They need and deserve the ability to create similar images that are as good or better. The idea-expression dichotomy protects that right by preventing copyright owners from monopolizing a category of works.<sup>89</sup>

While the originality requirement for copyright protection is notoriously forgiving, it isn't a gimme. The Copyright Office rejects a significant number of registration applications every year.<sup>90</sup> And many of those registration applications are rejected for lack of sufficient "creativity."<sup>91</sup> Why? Often because it considers them "standard" works, reflecting the conventional way of realizing a familiar object. For example, the Copyright Office refused to register:

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87. Law Media Prof, *Merger Doctrine and Copyright Law*, LAW PROFESSOR BLOGS NETWORK (May 2006), [https://lawprofessors.typepad.com/media\\_law\\_prof\\_blog/2006/05/merger\\_doctrine.html#:~:text=The%20merger%20doctrine%20in%20copyright,of%20the%20idea%20is%20uncopyrightable](https://lawprofessors.typepad.com/media_law_prof_blog/2006/05/merger_doctrine.html#:~:text=The%20merger%20doctrine%20in%20copyright,of%20the%20idea%20is%20uncopyrightable) ("The merger doctrine in copyright states that if an idea and the expression of the idea are so tied together that the idea and its expression are one—there is only one conceivable way or a drastically limited number of ways to express and embody the idea in a work—then the expression of the idea is uncopyrightable.").

88. See LARVA LABS: TYPES AND ATTRIBUTES, *supra* note 14.

89. See *Ideas Are Not Protected By Intellectual Property Law But Expressions Are: Analysis*, *supra* note 62.

90. See generally Zvi S. Rosen & Richard Schwinn, *An Empirical Study of 225 Years of Copyright Registrations*, 94 TUL. L. REV. 1003 (2020).

91. See generally Pottinger & Frye, *supra* note 56.





- Cady Noland’s sculpture, *Log Cabin*, because it took the form of a standard log cabin;<sup>92</sup>
- Fernando Donis’s sculpture, *Dubai Frame*, because it took the form of a standard picture frame;<sup>93</sup> and
- The design of a package of cod liver in its own oil, because it was dictated by regulatory and functional requirements.<sup>94</sup>

The Copyright Office often refuses to register logos for lacking sufficient originality. For example, it refused to register:



- The American Airlines logo;<sup>95</sup> and
- the Ulthera logo.<sup>96</sup>

The Copyright Office even has a history of resisting registration of pixel art. For example, it refused to register the Atari video game *Breakout*, finding

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92. Letter from U.S. Copyright Office Review Board to Michael Frodsham (Oct. 13, 2016).

93. Letter from U.S. Copyright Office Review Board to Edward Klaris (Nov. 29, 2017).

94. Letter from U.S. Copyright Office Review Board to Jennette Wiser (Jan. 24, 2017).

95. Letter from U.S. Copyright Office Review Board to Andrew J. Avsec (Oct. 23, 2017). On reconsideration, the Review Board found that the American Airlines logo was registrable after all. Go figure. Letter from U.S. Copyright Office Review Board to Eric F. Leon (December 7, 2018).

96. Letter from U.S. Copyright Office Review Board to Jonathan Hyman (Jan. 8, 2018).

that it lacked sufficient originality to qualify for copyright protection.<sup>97</sup> While the District of Columbia Circuit repeatedly disagreed with the Copyright Office's refusal to register the game, it acknowledged that copyright was a close question.<sup>98</sup>



If the Copyright Office found these works uncopyrightable, it is at least possible that it would find some or all of the elements of the CryptoPunks images uncopyrightable as well. After all, surely an entire 8-bit video game includes more copyrightable material than a single 8-bit sprite.

The point is, copyright can only protect the elements of the CryptoPunks images if they were independently created by Larva Labs.<sup>99</sup> In other words, if Larva Labs copied elements of other 8-bit sprites when it created the CryptoPunks elements, then copyright cannot protect the copied elements. It's impossible to know whether Hall and Watkinson actually copied any other works, but it wouldn't be surprising. Borrowing visual elements is a common and widely-accepted practice among pixel art authors, probably because the nature of the medium limits the range of possible expression, and because meme culture encourages copying.

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97. See *Atari Games Corp. v. Oman*, 888 F.2d 878 (D.C. Cir. 1989); *Atari Games Corp. v. Oman*, 979 F.2d 242 (D.C. Cir. 1992).

98. See *Atari Games Corp.*, 979 F.2d at 247.

99. See 17 U.S.C. § 102(a) (requiring "original works of authorship" for copyright protection).



Epyx, *California Games* (1987)

In any case, the CryptoPunks elements resemble elements used in other 8-bit sprites. Take this image from the 1987 Epyx videogame *California Games*, which represents the judges of the surfing competition. The shape of the judges' heads resembles the shape of the CryptoPunks types, in some cases quite closely. And many of the other elements used to create the judges resemble CryptoPunks traits.<sup>100</sup> For example, I see versions of regular shades, classic shades, mohawk thin, wild blonde hair, and messy hair.

Are the CryptoPunks types and elements identical to those used in *California Games*? Of course not, although some are quite close indeed. Were the CryptoPunks types and elements copied from *California Games*? Maybe, it was a popular game, selling more than 500,000 copies. Does it matter?

Of course, it does. Copyright can only protect original works of authorship, which means it can only protect the elements of a work that aren't copied from another work.<sup>101</sup> But versions of the graphic elements used to create the CryptoPunks images were used to create works of pixel art long before the CryptoPunks were created. After all, I found this example of similar pictorial works in about thirty minutes, with little knowledge of pixel art. I'm sure there are many other examples.

If copyright can protect the CryptoPunks elements at all, it can only provide thin protection, covering the graphic elements Hall and Watkinson created and no more. And, in many cases, it's hard to see how copyright can protect those elements at all if copyright protection would effectively prevent

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100. See LARVA LABS: TYPES AND ATTRIBUTES, *supra* note 14.

101. See 17 U.S.C. § 102(a).

other authors working in the same medium from achieving a similar visual effect.<sup>102</sup>

In a nutshell, it's hard to say for certain whether copyright can and does protect the CryptoPunks images.<sup>103</sup> On one side, copyright protection is quite forgiving, so even simple images like 8-bit sprites usually receive at least some copyright protection. But, on the other side, Larva Labs isn't just claiming an 8-bit sprite, it's claiming all possible combinations of a set of graphic elements. That's a much broader claim, which presents a much harder copyright question. Does claiming all possible CryptoPunks variations simply mean claiming a lot of particular expressions, or is it more like claiming an abstract idea?

## VI. OWNING THE CRYPTOPUNKS

So, are the CryptoPunks NFTs or the V1 CryptoPunks NFTs infringing? It all depends on whether Larva Labs owns a valid copyright in the CryptoPunks images, what rights if any it explicitly or implicitly gave to owners of CryptoPunks NFTs, and whether a particular use of a CryptoPunks image is infringing.

First, let's get something off the table. Selling an NFT is almost never infringing.<sup>104</sup> The overwhelming majority of NFTs consist of nothing more than an encrypted URL. Owning, transferring, and transacting in encrypted URLs is not and cannot be infringing. There's nothing to infringe.

What can be infringing is creating a reproduction of a copyrighted image associated with an NFT without permission. When the copyright owner of an image sells an NFT of that image, they often give the NFT owner the explicit

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102. See also Alfred "Dave" Steiner, *Bored Apes & Monkey Selfies: Copyright & PFP NFTs*, May 31, 2022, at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4116638](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4116638) (arguing that copyright in algorithmically generated images narrows as additional images are created).

<sup>103</sup> As an aside, even if the CryptoPunks images are copyrightable, the scope of the copyright in any particular CryptoPunks image is unclear. As Alfred Steiner has observed, algorithmically generated images present a unique copyright problem, because they are so similar to each other. See Alfred "Dave" Steiner, *Bored Apes & Monkey Selfies: Copyright & PFP NFTs*, at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4116638](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4116638).

104. See generally Alfred "Dave" Steiner, *The Paper It's Printed On: NFTs, Ownership and Conceptual Art*, SSRN (Jan. 4, 2022), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3997352](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3997352) (explaining how copyright affects NFTs and licensing the images associated with them).

right to use the image in certain ways.<sup>105</sup> At the very least, they implicitly give the NFT owner the right to use the image when “displaying” or selling the NFT.<sup>106</sup>

The copyright owner of an image has the exclusive right to reproduce that image.<sup>107</sup> Accordingly, the copyright owner of an image can create an NFT of that image, display the image when selling the NFT, and convey rights to use the image to the NFT owner. Anyone can create and sell an NFT of anything they like, including a copyrighted image. But if they are not the copyright owner, they cannot use the image when they sell the NFT without infringing copyright, and they cannot convey any rights to use the image, because they do not have any. Of course, if the image is in the public domain, it is not protected by copyright, and anyone can use it in any way they like.<sup>108</sup>

The overwhelming majority of NFTs are associated with copyrighted digital images, and the overwhelming majority of those NFTs were created and sold by the copyright owner of the images they represent. Different NFT artists have chosen to license their images in different ways. While NFT artists can retain all rights in their images, most at least give NFT owners the right to use the image associated with their NFT personally or non-commercially. Others, like Yuga Labs, are more liberal, giving NFT owners the right to use the image associated with their NFT in some commercial ways as well.<sup>109</sup> And, increasingly, many NFT artists use Creative Commons licenses to make their images open-access, or the Creative Commons CC0 tool to disclaim copyright ownership of their images and place them in the public domain.<sup>110</sup>

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105. See Georgina Adam, *But Is It Legal? The Baffling World of NFT Copyright and Ownership Issues*, THE ART NEWSPAPER (Apr. 6, 2021), <https://www.theartnewspaper.com/2021/04/06/but-is-it-legal-the-baffling-world-of-nft-copyright-and-ownership-issues> (discussing the complexities of NFT ownership).

106. *Id.*

107. See 17 U.S.C. 106 (stating that the owner of a copyright has the exclusive right to reproduce the copyrighted work).

108. See Rich Stim, *Welcome to the Public Domain*, STAN. LIBR., <https://fairuse.stanford.edu/overview/public-domain/welcome/#:~:text=The%20term%20E2%80%9Cpublic%20domain%E2%80%9D%20refers,one%20can%20ever%20own%20it.> (last visited Mar. 26, 2022) (discussing the public domain in relation to copyright law).

109. See *Terms & Conditions*, BORED APE YACHT CLUB, <https://boredapeyachtclub.com/#/terms> (last visited Mar. 26, 2022).

110. Examples of CC0 NFT collections include: CrypToadz and NounsDAO. See CRYPTOADS, <https://www.cryptoadz.io/> (last visited Mar. 26, 2022); NOUNSDAO, <https://nouns.wtf/> (last visited Mar. 26, 2022).

Oddly, despite the prominence of the CryptoPunks NFTs, their licensing status is unclear.<sup>111</sup> When Larva Labs released the CryptoPunks NFT collection, it didn't provide any licensing terms for the images associated with the NFTs. Apparently, Watkinson initially intended the owners of CryptoPunks NFTs to own the copyright in the CryptoPunks image associated with their NFT.<sup>112</sup> But Larva Labs never actually transferred copyright ownership to NFT owners, so it retained any copyright ownership that exists in the images.<sup>113</sup> Later, Watkinson expressed an intention to adopt the so-called "NFT License" used by Dapper Labs for the CryptoKitties NFTs.<sup>114</sup> But there's no evidence Larva Labs ever adopted the NFT License, or any other license, for that matter.

However, Larva Labs did hire United Talent Agency (UTA) to manage its intellectual property, presumably including its CryptoPunks brand and copyright.<sup>115</sup> What is UTA licensing? Who knows. The CryptoPunks brand seems strong, and Larva Labs has a pending trademark registration application.<sup>116</sup> And Larva Labs has also registered a copyright in a composite of all 10,000 CryptoPunks images.

But everyone seems to think UTA is managing the rights in all 10,000 CryptoPunks images. Is that true? And, if so, what rights is it managing? Some CryptoPunks images have certainly become distinctive, and function as de facto brands. For example, the owner of the CryptoPunks 6529 NFT has almost 250,000 Twitter followers, and considerable clout in the NFT space.<sup>117</sup>

111. See generally Edward Lee, *The Cryptic Case of the CryptoPunks Licenses: The Mystery Over the Licenses for CryptoPunks NFTs*, SSRN (Feb. 7, 2022), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3978963](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3978963) (explaining the licensing status of the images associated with CryptoPunks NFTs).

112. See Eric Adler, *CryptoPunks: Aligning Blockchain Ownership with Copyright Ownership*, PNW STARTUP LAWYER (Jan. 24, 2018).

113. Under the Copyright Act, copyright vests in an author of a work of authorship and can be transferred only in a signed writing. See 17 U.S.C. § 201(d).

114. See Eric Paul Rhodes, *CryptoPunks and Copyrights: What's All The Fuss About?*, THE OUTER REALM (July 12, 2021), <https://www.theouterrealm.io/blog/cryptopunks-copyrights>; see also Held, *Define What Ownership Means in Blockchain*, NFT LICENSE, <https://www.nftlicense.org/> (last visited Mar. 26, 2022).

115. See Taylor Hatmaker, *CryptoPunks Creator Inks Representation Deal With Major Hollywood Talent Agency*, TECHCRUNCH (Aug. 31, 2021), <https://techcrunch.com/2021/08/31/larva-labs-cryptopunks-uta-meebits/>.

116. See *CryptoPunks*, U.S. PATENT AND TRADEMARK OFF., [https://tsdr.uspto.gov/#caseNumber=90587519&caseType=SERIAL\\_NO&searchType=statusSearch](https://tsdr.uspto.gov/#caseNumber=90587519&caseType=SERIAL_NO&searchType=statusSearch) (last visited Mar. 26, 2022).

117. See @punk6529, TWITTER, <https://twitter.com/punk6529> (last visited Mar. 26, 2022).

It's possible, even likely, that UTA is working with prominent CryptoPunks NFTs owners to promote the CryptoPunks brand.

However, there's no evidence that Larva Labs or UTA are doing much of anything to actually enforce copyright ownership of the CryptoPunks images. They're widely reproduced, and Larva Labs has never objected. On the contrary, Larva Labs makes it easy to find the CryptoPunks image of your choice, and even provides a downloadable, high-resolution JPEG, for your convenience. They haven't even filed a copyright infringement action against Not Larva Labs, which is obviously using CryptoPunks's images without permission.

What gives? I suspect Larva Labs realizes that its copyright in the CryptoPunks images is questionable. If Larva Labs owns a copyright in the CryptoPunks images, it's a wafer-thin copyright. And there's a very real possibility they don't and can't own any copyright at all. It's hard to know, and Larva Labs probably doesn't want to find out. There's no real upside to talking about the copyrightability of the images you claim to own, especially when everyone assumes they're protected, and you know they might not be.

#### A. *Punking the CryptoPunks*

How does any of this affect NFT collections that use CryptoPunks images without the permission of Larva Labs, like CryptoPhunks and the V1 Punks? It depends.

If the CryptoPunks images are uncopyrightable, then it's a free-for-all. CryptoPhunks and the V1 Punks would be in the clear, but so would anyone else who wanted to use the CryptoPunks images. Anyone could use the CryptoPunks images in any way they liked without asking permission from Larva Labs. They could use CryptoPunks images to illustrate newspaper articles, as profile pictures, and on t-shirts. They could even sell NFTs of the CryptoPunks images.

What a catastrophe! Maybe not. In fact, obviously not. All of those things are already happening, and it hasn't hurt the market for CryptoPunks NFTs one bit.<sup>118</sup> Is it even a luxury good without counterfeiters? If anything, it's only made them more valuable by creating

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118. LARVA LABS: CRYPTOPUNKS, *supra* note 3 (tracking the market for CryptoPunks).

more buzz. As a great philosopher once said, “[t]he only thing worse than being talked about is not being talked about.”<sup>119</sup>

But let’s assume the CryptoPunks images are copyrightable. How would it affect other NFT projects using those images?

### *B. Copyright & V1 Punks NFTs*

Let’s start with the V1 Punks NFTs. I don’t think the copyrightability of the CryptoPunks images should affect them at all. And I think Larva Labs knows it. They can huff and puff, but I don’t think they can do anything to stop people from selling V1 Punks NFTs or using CryptoPunks images in connection with those NFTs.

Think about it. Larva Labs created the V1 Punks NFTs. It intended those NFTs to represent particular CryptoPunks images. And, it enabled people to claim those NFTs. There’s no question that the people who claimed V1 Punks NFTs owned those NFTs. And there’s nothing stopping them from wrapping those NFTs in a new contract or selling those NFTs to someone else.

The only real question is whether an owner of a V1 Punks NFTs has a right to use the CryptoPunks image their NFT represents in connection with the sale of their NFT. The answer has gotta be yes. After all, Larva Labs created the NFT and said it represents ownership of a particular CryptoPunks image. If that doesn’t create an implied license, I don’t know what does.

Larva Labs is in a pickle. It can’t possibly deny that CryptoPunks NFTs represent ownership of particular CryptoPunks images, or that ownership of a CryptoPunks NFT creates an implied license to use the CryptoPunks image it represents in at least some ways. It literally created and operates a marketplace for CryptoPunks NFTs. But it wants to be able to distinguish between CryptoPunks NFTs it considers authentic and CryptoPunks NFTs it considers inauthentic.

It probably can. Copyright has little to say about the authenticity of works of authorship, and nothing to say about the authenticity of digital works.<sup>120</sup> If

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119. Oscar Wilde, NAT’L LIBR. OF MEDICINE, [https://pubmed.ncbi.nlm.nih.gov/23688658/#:~:text=Oscar%20Wilde\)%5D-%20only%20thing%20worse%20than%20being%20talked%20about%20is%20not,talked%20about%20\(Oscar%20Wilde\)%5D](https://pubmed.ncbi.nlm.nih.gov/23688658/#:~:text=Oscar%20Wilde)%5D-%20only%20thing%20worse%20than%20being%20talked%20about%20is%20not,talked%20about%20(Oscar%20Wilde)%5D) (last visited Mar. 26, 2022).

120. While the Visual Artists Rights Act created limited attribution and integrity rights for authors of “works of visual art,” there’s no serious argument that it applies to digital works. See 17 U.S.C. § 101; 106A. The definition of a “work of visual art” does not and cannot include digital works, which



Larva Labs wants to say the V1 Punks NFTs are inauthentic, fine. Everyone's got an opinion. But NFT collectors don't have to agree with Larva Labs. If they think the V1 Punks NFTs are authentic, that's their business, and Larva Labs can't stop them.

For what it's worth, the "authenticity" of an NFT is currently being litigated in the Southern District of New York.<sup>121</sup> In 2014, digital artist Kevin McCoy created a token on the NameCoin blockchain that represented ownership of his work *Quantum*, but he failed to renew the token, so it expired.<sup>122</sup> In 2020, McCoy created an NFT of *Quantum*, which he sold at Sotheby's for \$1.47 million.<sup>123</sup> However, an anonymous NFT collector claimed the token on the NameCoin blockchain corresponding to *Quantum*, claimed it is the "authentic" token representing the work, and sued McCoy for denying it.<sup>124</sup> We shall see what the court has to say, but similar authentication claims filed by disgruntled collectors have fared poorly in the past.<sup>125</sup>

In any case, Larva Labs can't stop the owner of a V1 Punks NFTs from telling people what it is or what it represents. After all, Larva Labs created the V1 Punks NFTs and said what they represent. And if the owner of a V1 Punks NFT can say what the NFT represents, then they can show what it represents as well. That's the whole point of the NFT, it was literally created to represent a CryptoPunks image. If you're allowed to sell something, then you're allowed to show people what you're selling.<sup>126</sup>

Of course, Larva Labs doesn't have to give the owners of V1 Punks NFTs any additional rights or give them the same rights it gives to the owners of CryptoPunks NFTs. If Larva Labs owns a copyright in the CryptoPunks images, it can license its copyright in any way it likes. But it can't take back an implied license it already granted.

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by their very nature cannot exist in a "single" or "limited number" of copies. NFTs are unique, the works they represent are not, that's literally the whole point of NFTs.

121. Free Holdings, Inc. v. McCoy, No. 1:2022cv00881 (S.D.N.Y. 2022) (Justia).

122. *Id.*

123. *Id.*

124. See Shanti Escalante-De Mattei, *Sotheby's, Artist Kevin McCoy Sued Over Sale of \$1.5 M. NFT*, ARTNEWS (Feb. 7, 2022), <https://www.artnews.com/art-news/news/sothebys-kevin-mccoy-quantum-nft-sale-lawsuit-1234618249/>.

125. See, e.g., Simon-Whelan v. Andy Warhol Foundation for the Visual Arts, Inc., No. 1:2007cv06423 (S.D.N.Y. 2009) (Justia).

126. Cf. Brian L. Frye, *Andy Warhol's Pantry Tokens*, OPENSEA, <https://opensea.io/collection/andywarholpantrytokens> (last visited Mar. 26, 2022); Brian L. Frye, *Andy Warhol's Pantry Tokens*, SSRN (Nov. 15, 2021), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3957679](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3957679).

*C. Copyright & CryptoPhunks*

What about the CryptoPhunks? If Larva Labs owns a copyright in the CryptoPunks images, then the CryptoPhunks are in trouble. There's no serious argument that the CryptoPhunks images aren't prima facie infringing. Flipping an image isn't a relevant or material change.

The only viable argument is fair use. I'm not optimistic. Sure, the CryptoPhunks NFTs are a parody of the CryptoPunks NFTs. But they're also literal copies being sold for the same purpose to the same people. For better or worse, copyright is a form of competition policy, and the entire point of the CryptoPhunks parody is to compete with the CryptoPunks for fun and profit. They had their fun, but they don't necessarily get to profit.

## VII. CONCLUSION

Does any of this matter? I just explained why the CryptoPunks images might not be protected by copyright. But I'm confident my analysis will have no impact on the market for CryptoPunks NFTs. Why not? Maybe because copyright doesn't really matter. Or, rather, maybe because the whole point of NFTs is to make copyright irrelevant.<sup>127</sup> Larva Labs is obviously worried about its copyright in the CryptoPunks images. Maybe it should stop worrying and learn to love open-access and the public domain.

For better or worse, the NFT market is an art market, or at least a peculiar simulation of one, and art markets don't really care about copyright.<sup>128</sup> How does Larva Labs profit from the CryptoPunks? As far as anyone can tell, by selling the NFTs it kept on the secondary market. Sure, there's some licensing revenue. But it's based on the brand, not the individual images. If people want to create competing projects, let them. It can only increase the value of the brand. "As long as the roots are not severed, all is well. And all will be well in the garden."<sup>129</sup>

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127. Cf. Brian L. Frye, *After Copyright: Pwning NFTs in a Clout Economy*, COLUM. J. OF L. & THE ARTS (forthcoming), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3971240](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3971240).

128. See generally Amy Adler, *Why Art Does Not Need Copyright*, 86 GEO. WASH. L. REV. 313 (2018).

129. BEING THERE (1979).

## VII. POSTSCRIPT

On March 11, 2022, Yuga Labs bought all of Larva Labs’s intellectual property rights in CryptoPunks, as well as most of the CryptoPunks NFTs still owned by Larva Labs.<sup>130</sup> The primary purpose of the sale was to transfer management of the CryptoPunks brand to Yuga Labs. The first thing Yuga Labs did was to give the owners of CryptoPunks NFTs a license to commercially exploit the image associated with their NFT, the same license it offers to owners of Bored Ape Yacht Club NFTs.

Ok, what happened? It’s hard to say, exactly. Larva Labs sold its “intellectual property” in the CryptoPunks. So, Yuga Labs presumably now owns the CryptoPunks brand, and any copyright in the CryptoPunks images. Was there any copyright to sell? Who knows. Yuga Labs doesn’t really seem to care. Maybe it’s for the best. If copyright doesn’t matter anyway, why make a fuss about it?

## VII. POST-POSTSCRIPT

In any case, on August 15, 2022, Yuga Labs adopted “Punks,” a written licensing agreement for the CryptoPunks NFTs.<sup>131</sup> Essentially, the license formalizes Yuga’s previous unilateral license to CryptoPunks NFT owners. It claims that Yuga Labs owns “any and all copyrights, trademarks, and other intellectual property rights” in the CryptoPunks images, but grants CryptoPunks NFT owners “an exclusive, universe-wide, royalty-free, sublicensable license to reproduce, distribute, prepare derivative works based upon, publicly display, publicly perform, transmit, and otherwise use and

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130. See Larva Labs, Yuga Labs Acquires CryptoPunks and Meebits, March 11, 2022, at <https://www.larvalabs.com/blog/2022-3-11-18-0/yuga-labs-acquires-cryptopunks-and-meebits>; Yuga Labs, Yuga Labs acquires CryptoPunks and Meebits and gives commercial rights to the community, March 11, 2022, at [https://mirror.xyz/0xEc9f53fA69682833FBd760C104B5D61aE29221E0/Km81y6Mc3O5LzS0wnrg-hVIV0HnZgLOd4wsnfcGw3\\_2I](https://mirror.xyz/0xEc9f53fA69682833FBd760C104B5D61aE29221E0/Km81y6Mc3O5LzS0wnrg-hVIV0HnZgLOd4wsnfcGw3_2I); and Guillermo Jimenez, Bored Ape Yacht Club’s Yuga Labs Acquires CryptoPunks IP From Larva Labs, Decrypt, March 11, 2022, at <https://decrypt.co/94898/bored-ape-yacht-club-yuga-labs-cryptopunks-larva-labs>.

<sup>131</sup> See Yuga Labs (@cryptopunksnfts), Twitter (Aug. 15, 2022, 4:01 PM), at <https://twitter.com/cryptopunksnfts/status/1559284220442320897>. See also Yuga Labs, CryptoPunks Terms (Aug. 15, 2022), at <https://licenseterms.cryptopunks.app/>.

exploit” the Cryptopunks image associated with their NFT. Of course, the license includes many exceptions, especially in relation to the CryptoPunks mark, and prohibits offensive uses of CryptoPunks images.

What does the Punks License tell us about copyright in the CryptoPunks images? Not much. Unsurprisingly, the license assumes Yuga Labs owns a copyright in the CryptoPunks images. Maybe it does and maybe it doesn't. Licensing agreements for dubious copyrights are common.<sup>132</sup> And copyright ownership is highly salient to many NFT owners.<sup>133</sup> As Alfred Steiner has observed, NFT licenses are worth the paper they're printed on, but often not much more.<sup>134</sup> The Punks license is no exception. For my part, I suspect the CryptoPunks brand is the truly valuable asset, whether or not the CryptoPunks images are copyrightable.

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<sup>132</sup> See, e.g., Guy A. Rub, *Owning Nothingness: Between the Legal and Social Norms of the Art World*, 2019 B.Y.U. L. Rev. 1147 (2020) (observing that art museums, galleries, and collectors commonly license uncopyrightable conceptual art works).

<sup>133</sup> See Brian L. Frye, *NFTmarks*, Amsterdam Law & Technology Institute Forum (2022), at <https://alti.amsterdam/frye-nftmarks/>.

<sup>134</sup> Alfred “Dave” Steiner, *The Paper It's Printed On: NFTs, Ownership and Conceptual Art* (2021), at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3997352](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3997352).