

September 17th, 2021

The Metaverse Series Part Four: Cryptovoxels

Introduction

The metaverse refers to a collectively shared virtual space that arises through the convergence of virtual and augmented reality, as well as the internet. It's often heralded as a burgeoning, next-generation iteration of the internet, consisting of universally existent/accessible, three-dimensional, shared virtual spaces residing within a larger virtual universe.

This report series aims to delve into the metaverse through describing its capabilities, applications, and developments; explaining different, prominent implementations of the metaverse in the context of Decentraland, Somnium, The Sandbox, Cryptovoxels, and Upland; offering explanations for different virtual real-estate offerings in each of these metaverses and the process of buying/renting land in each; as well as a offering a description of companies that facilitate virtual real-estate offerings within the metaverse.

Previous report installations focused on the particular metaverse implementations of Decentraland, Somnium, and The Sandbox. This report installation of the series will focus specifically on the metaverse implementation known as Cryptovoxels: a virtual world powered by the Ethereum blockchain where users can buy land, build stores and art galleries, and more with build-in editing tools, avatars, and text chats for peer-engagement/interaction.

Cryptovoxels Fundamentals

<u>Overview</u>

Cryptovoxels is a virtual world built atop the Ethereum Blockchain network. The world consists of a city referred to as Origin City, which contains streets that are in turn owned by The Corporation (i.e., a





governing entity) as well as parcels that are owned by individual people, where anyone with an Ethereum wallet is capable of buying a parcel.

Parcel owners are in-turn capable of building on their parcel, and are able to add/remove blocks in the form of voxels as well as features on their parcels. Parcel owners additionally have the ability to designate their parcels as sandbox parcels, which makes their parcel free for anyone to build on as they so choose. For specificity, "features" refers to things such as GIFs, audio buttons, voxel models, images, text, polytext (3D text) and other such additions.

For optimal rendering in user browsers, Cryptovoxels employs babylon.js: one of the most powerful and clear rendering engines which is completely free and open sourced, with the aim of enabling everyone to animate their ideas and creations.

Additionally, it's worth noting that Cryptovoxels has built-in compatibility with a variety of the top VR devices if users choose to engage in VR mode versus regular 2D mode. These devices include some of the following: Oculus Quest, Oculus Rift, and HTC Vive.

Users are capable of exploring the Cryptovoxels world without an Ethereum wallet or parcel simply by playing in <u>free-mode</u>, enabling them to explore and interact with whatever activities catch their attention as they find them. The platform hosts a wide array of different activities, including galleries, curated item collections, portals, and more.

It's worth noting that Cryptovoxels is the smallest of all virtual blockchain worlds (VBWs) by area, though is also the only one which is continuously expanding with no predefined limit on how large it could grow. It is also arguably the easiest to get started building in, as users can jump right into the world without any specified software or hardware via free-mode and begin building virtually right away via the user-friendly drag-and-drop interface.

Parcel-Building & Buying

For users that are interested in the building process, there are three primary options to do so:

- 1. Use a free, editable, non-grid space provided by the platform which is locatable under "account settings".
- 2. Build on one of the available sandbox parcels owned by other individuals and designated for public build use.
- 3. Buy a parcel of one's own so that they may build on that.

Building parcels is completed entirely within the browser, so one doesn't have to employ specialized scripting or programming skills. Instead, like other user-friendly metaverse implementations, users have the ability to



simply drag-and-drop to place blocks and build out the different elements of their parcel as desired.

To purchase a parcel, avatar costumes, and other goods within the Cryptovoxels space, users transact via OpenSea. Once they have metamask unlocked and have signed into the Cryptovoxels platform, users can access their parcel via the parcel list and click "visit" to immediately visit their parcel. Users can then press "tab" to bring up the menu, go to the blocks tab, and select a block. From here, users should be able to click/shift click to begin building their designs.

Avatars & Wearables

In the Cryptovoxels world, much like other metaverse implementations, users take the form of representative avatars which they can customize in turn. Owning an avatar is essentially like registering a username or account on a website; avatars effectively take the form of unique, non-duplicable NFTs which can be owned, bought, and sold. It's worth noting as well that just as users don't need to own land in order to interact and engage with the Cryptovoxels universe, neither do users need to own a registered avatar as they can login as a guest simply by clicking a link to start exploring. Moreover, users can have an unlimited number of avatars per email/digital wallet.

Additionally, while avatars are standardized to come in a white mannequin style, users can ornament their avatars via Cryptovoxel wearables which can also be bought on the OpenSea marketplace. The Cryptovoxel community has essentially been given free reign to develop their own wearables as they see fit, leading to a broad, diverse, and unique array of designs of all shapes and sizes. Just like their avatar counterparts, wearables take the form of NFTs and have their own marketplace on OpenSea. As of June 2021, Cryptovoxel wearables enabled a switch to the Polygon (MATIC) sidechain, meaning that the cost to produce and mint wearables for in-world microtransactions is approximately around \$1 or less, adding an additional layer of accessibility for users bases regardless of budgets, which may have been previously constrained by high Ethereum transaction gas costs. As of writing, the OpenSea marketplace for wearables has over 363,400 items, with 2300 owners, 183 ETH in volume traded, and an average price of 0.02 ETH, or roughly \$43 USD as of writing.

<u>Platform Controls</u>

The key platform controls which correspond to on-platform mechanics include:

W, A, S, D and arrow keys: Directional movement corresponding to forward, left, back, and right keys

Shift: Running



Tab: Opening the build menu

Space: Jumping

F: Flying

C: Third person view

R: Replicate feature for editing

M: Move feature for editing

E: Edit feature for editing

Other Engines

Some of the other engines which are capable of running Cryptovoxel's map and platform activity include the following:

VRChat: A platform which offers a broad collection of social-based VR experiences via leveraging the power of creation through its community. In this respect, VRChat involves over 25,000 Community-Created Worlds and networks and is growing in this regard rapidly.

NeosVR: NeosVR is a metaverse engine developed by Solirax with the intent of furthering the growth of social VR activities and applications. Users can explore rich virtual worlds filled with diverse creations and activities involving fun, education, art, and broader content production. The platform is built on top of a scripting engine which combines elements of game engine logic, asset synchronization and processing, as well as asynchronous tasks. Furthermore, scientists, creators, developers, and engineers garner the ability to tailor and modify the behavior of their creations uniquely. As well, Neos provides the infrastructure necessary for a variety of types of projects and includes automated support for a broad variety of VR devices, online multiplayer and cloud storage capabilities, and more.

Substrata: Substrata is a multi-player/user cyberspace and metaverse. Users are able to interact/engage with others as well as explore locations and items that other users may have created. User accounts can be created for free and objects can be added to the world by any such user on the platform. To this end, Substrata has supported object scripting for users. Substrata client software is traditionally compatible with Windows, OS X, and Linux, with on-platform parcels capable of being purchased on OpenSea. Substrata has embedded Cryptovoxels for testing and user amusement purposes; to explore the Cryptovoxels world, users just need to install and run Substrata on their devices, then access the "menu bar" and select: Go → Go to Cryptovoxels World.



Community

As of writing, the Cryptovoxels platform itself has over 8969 registered users. Moreover, Cryptovoxels maintains an active social presence for user engagement and interaction across a variety of social media platforms, including the following as of writing: Twitter (39K followers), Discord (4412 members), and Reddit (698 citizens). The most frequent platform-related discourse and engagement occurs through the Cryptovoxels Discord account. While the Cryptovoxels platform is currently not decentralized in terms of ownership, there have been rumours and indications with respect to the future that this may change towards broader, decentralized, community-centric ownership.

Like many other metaverse platforms, Cryptovoxels hosts a variety of community-centric events created by users. Some of these include the following:

- Litty Pop Up Grand Opening (July 4th Special): At 1 PM CST on July 4th, there is a "Litty Pop Up Shop" grand opening, where a user will have a live DJ mix session as well as will be giving away free, July 4th-themed wearables to all attendees.
- Purple Party #9: This event involves a DJ Set, Special NFT Drop, and Wearable Giveaway and is hosted in Purple Velly on the 4th of July from 4:00 PM to 8:00 PM CST.
- Hashrunes Exhibition: Hasrunes refer to the first on-chain, named pieces of generative art on the Cryptovoxels platform. In addition, the name, design, and colors of each Hashrune will all be completely live on the blockchain. The event is hosted at the "Warriors of San Francisco" Basketball Court on July 2nd, 9:00 PM to July 3rd, at 7:00 AM CST.

Users within the Cryptovoxels metaverse can document their experience in the community and share it with other users by sharing intraworld screenshots called "Womps". Womps are displayed on the homepage of the Cryptovoxels website and enable users to instantly teleport to the corresponding locations associated with the given Womp within the browser.

<u>Technical Specifications</u>

Unlike other metaverse implementations which often require software/hardware peripherals, Cryptovoxels runs entirely in users web browsers, significantly broadening the scope of accessibility and potential user base. That being said, for a smoother, optimal experience and to avoid lag, it may be better for users to have a graphics card as well as a strong



internet connection. The recommended browsers are Google Chrome for Windows and Safari for Mac.

Properties on the Cryptovoxels platform are designated as crypto-collectibles, or ERC-721 tokens following the NFT token standard; the same protocol upon which famous blockchain applications like CryptoKitties are built on. As such, properties built, held, or sold in this form are immutable from everyone aside from owners, verifiable, authentic, and easily transferable, with relevant information being stored on the Ethereum blockchain.

The Cryptovoxels land contract is deployed at 0x79986aF15539de2db9A5086382daEdA917A9CF0C and the source code is publicly available on Github. When the Cryptovoxels applications fails to update the contract following a transaction, users should locate their parcels on the map and click an "octopus shaped" button to refresh the parcel's ownership record via the contract. Viewing the contract via etherscan also enables users to confirm their ownership of their parcels. In the event that there are still such technical issues, the Cryptovoxels community relies on Discord to liaise with the Cryptovoxels team to address and rectify such situations.

In addition, to fully use the Cryptovoxels platform, users need to use a Web3-enabled browser. If on desktop, users can install Metamask and if on mobile, users can install Coinbase wallet via iOS or Android.

Team, Development. & History

Cryptovoxels was developed by Nolan Consulting Limited, an independent game developer based in Wellington, New Zealand starting around its founding date on April 1st, 2018. The team is headed by Ben Nolan (founder), Benjy Larcher (Developer, Analyst), Stig Lindqvist (Developer, Infrastructure), Matt McKegg (Technology Lead), Michael Braae (Godot Developer), Pete Black (Godot Developer), and Joran Kikke (Godot Developer).

The platform initially began as a project to build a metaverse on the web, drawing inspiration from the likes of Snowcrash and Ready Player One. It was a natural extension of the development team's previous work on the virtual reality applications known as SceneVR and AFrameVR. At some point, the developers began realizing the potential of a virtual world where land ownership was recorded and verified via the Ethereum blockchain network in the form of ERC-721 tokens (i.e., Ethereum-based NFTs). From here, the team focused heavily on the development of a full-fledged, user-editable world that required minimal programming knowledge.

The project was first released via a discreet beta key in May 2018. The primary land sales were made to the development team's advisors and friends in June 2018, then to early adopters via the OpenSea



crypto-collectibles marketplace. The beta key was removed and land sales became accessible to all users in July 2018.

Unlike other metaverse implementations, Cryptovoxels has never released a Whitepaper. In lieu of this, the team has taken an approach of iterating reactively as the platform progresses, using ideation and feedback to implement in-demand ideas and concepts over time. Likewise, Cryptovoxels founder and lead developer, Ben Nolan, has stated that there's no solid plan or timeline outlining what has to be worked on and when in regards to a typical roadmap, again emphasizing the more reactive approach of fixing bugs as they're encountered, engaging with the community about the improvements or new functionality that they'd like to have on-platform, and similar measures. Some of the best ways to keep track of progress and new releases on the Cryptovoxels platform is via the platform's Twitter account, the founder Ben Nolan's Blog, the Official Cryptovoxels Blog, or through Cryptovoxels News on NFT Plazas.

Popular Parcels

Some of the most popular parcels within the Cryptovoxels platform include the following:

- Glass Age: Located at 75 Block Fork near the center of Origin City (i.e., 12W, 12S), this features a Louvre-style artistic exhibition nestled near other popular attractions such as Addy Center, Addy Gardens, Block Fork, Buffer Crossing, and Quad Garden. This parcel has been visited over 131,000 times and is 21x20 meters in area with 13 meters of height. Per OpenSea, the latest offer on this parcel has been 6.73 WETH, or roughly \$14,478.99 USD as of writing.
- Space Age: Located at 70 Block Fork near the center of Origin City (i.e., 9E, 11N), this parcel features a space themed building with a Spacex logo, NFT art along the sides, a translucent glass exterior, a colorful and ornamented voxel interior, topped off with a rocketship on the roof. It is in close proximity to major platform locations including Addy Gardens, Block Fork, Ben Bypass, Buffer Crossing, and Angstrom Arcade. This parcel has been visited over 127,000 times and is 13x18 meters in area with a built height of 9 meters. Per OpenSea, the latest offer on this parcel has been 3.12 WETH, or roughly \$6712.40 USD as of writing.
- The Metalith Throne: Located at 68 Block Fork near the center of Origin City (i.e., 8W, 33N), this features a bull-shaped building that serves as an NFT exhibition/art-gallery for viewers to visit and interact with. It is in close proximity to major platform locations including Block Fork, Arch Arcade, Angstrom Arcade, and Cash Fort. This parcel has been visited close to 50,000 times and is 12x24 in area with a build height of 6 meters. Per OpenSea, the latest offer



on this parcel has been 3.135 WETH, or approximately \$6744.67 USD at the time of writing.

\$COLR Token

\$COLR was the on-platform currency for Cryptovoxels which was used to add color blocks into the world. In June 2020, \$COLR became inactive as the platform ceased to use or support it due to its in-world use becoming futile as color in the world became free.

If \$COLR was purchased prior to May 1st, 2020, it was exchanged for Ether at a rate of (1 Ether: 4000 COLR) in a platform buyback scheme. \$COLR was considered an experiment for microtransactions within the platform, but the Cryptovoxels team eventually realized that there were better coins suited for this purpose (e.g., XDAI, etc.) that rendered \$COLR redundant. Currently, Ethereum is now used instead for in-world microtransactions such as buying land, wearables, and other services.

Carbon Offset Program

The Cryptovoxels team and platform acknowledges the energy-intensive nature of the Ethereum blockchain network on which it operates. To counteract some of the network's energy-consumption and associated environmental concerns, Cryptovoxels has formally partnered with Offsetra, which enables companies and projects to offset their emissions through sponsoring high-quality carbon reduction initiatives. In particular, this has involved Offsetra assisting Cryptovoxels in helping the team/community calculate and offset some of their share of Ethereum network emissions. To date, Offsetra indicates that Cryptovoxels has offset 1,528,000 kilograms of CO₂ emissions; the equivalent of 119,937 Ethereum transactions or 3,829,000 miles of driving based on an average passenger vehicle. Offsetra claims that through Crypto Voxels volunteering to offset these emissions, the platform is supporting quality, third-party certified projects with a range of additional social and environmental benefits (e.g., Agrocortex REDD Project - 25 tons, Bull Run Forest Carbon Project - 25 tons, etc.,).

Investing, Buying & Renting Land: Cryptovoxels

<u>Overview</u>

As the metaverse, inclusive of Cryptovoxels, has boomed in popularity over the course of the last year, there has been an influx of demand for virtual land/real estate with respect to buying and renting for both investment and building purposes.

The main land area in Cryptovoxels is named Origin City, located in the center of the world map and which consists of 31 disparate neighborhoods. The original world map originally was composed of 3026 land parcels for purchase coming in a



variety of size and shapes, though as alluded to previously, the world map is expanding via the addition of various islands that are created periodically. This map in turn is divided into many uniquely named districts, each of which is composed of several streets. Furthermore, as with other metaverse implementations, each land parcel on the world map is uniquely identifiable by a set of coordinates.

The smallest indivisible unit that makes up these districts on the world map in turn is the Cryptovoxel land parcel. Each land parcel takes the form of an NFT, ERC-721 token with unique, unforgeable, non-duplicable characteristics akin to physical land in real life. Any user can buy or sell land at any instant, P2P on Cryptovoxels via the OpenSeal marketplace. As alluded to previously, all such transactions are stored on the Ethereum blockchain network for universally-accessible ownership verification. Furthermore, as with other metaverse implementations that've been discussed, each land parcel/token within the Cryptovoxels universe has unique coordinates which represent specific locations on the Cryptovoxels map. Another similarity to other metaverse implementations include some of the characteristics that determine land value, such as proximity to popular areas, accessibility to roads, build height and area, and more. In addition to owning and building land within the Cryptovoxels metaverse, users are also capable of renting land to other users as a form of monetization. With respect to building in the Cryptovoxels metaverse, it's worth noting that while each land parcel has various sizes as well as building height limits that vary as a direct function of size. Moreover, unlike metaverse implementations such as Somnium, users are unable to build underground.

As of June 2021, the total land available within the Cryptovoxels metaverse is approximately 5000 parcels as per OpenSea; a roughly 65% increase relative to the initially designated parcel count of 3026 when the Cryptovoxels map was originally created. Additionally, per OpenSea, there are currently around 1300 owners of land parcels, an average price of 2.09 ETH (currently ~\$4497.37 USD) per parcel across the different sizes, as well as 16,200 ETH (currently ~\$34,859,970 USD) worth of land-parcel-related volume traded to date on the platform.

With a persisting trend as throughout the COVID-19 pandemic as well as due to secular growth of technologies such as VR/AR, as more brands, commercial interests, and a broader user base enter metaverses Cryptovoxels, it's likely that the digital real estate and related assets within Cryptovoxels will continue to increase in value, even with the current expanding land parcel base (i.e., with maximal price levels likely to be reached as the addition of new land parcels tends to zero).

Additionally, it's worth noting that the NFT market tripled in size over the course of last year with very strong momentum carrying forward into 2021. As more wearables, collectibles, and art become represented by NFTs and with broader general investment in the space, the demand for a mechanism for storage and display of these digital assets will continuously increase. Cryptovoxels and similar metaverse implementations are prime storage and display mechanisms for these digital assets, as evidenced by Cryptovoxels' abundance galleries, art exhibitions, and collections. This thereby adds an additional, large and important dimension to Cryptovoxels' value proposition.

Investing, Buying, & Renting with Metaverse Property



Despite virtual land/real estate becoming an increasingly valuable emerging asset class via the metaverse, many investors may be overwhelmed by the novelty or complexity of buying/renting/investing in The Sandbox's digital real estate.

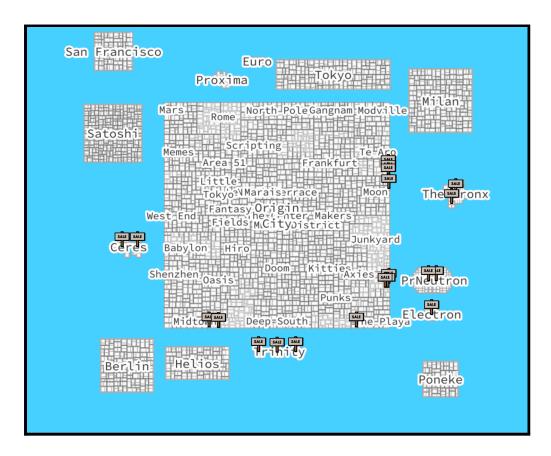
To this end, one the GDA Groups' partners, <u>Metaverse Property</u>, has endeavored to make the process of transacting with virtual real estate more seamless through a variety of service offerings.

Metaverse property is the first VR-based real estate company in the entire industry, providing exposure to the emerging virtual land industry throughout a variety of metaverse implementations, including: Decentraland, The Sandbox, Somnium, Cryptovoxels, and Upland. Metaverse property facilitates virtual property purchases and sales in addition to a suite of other services spearheaded by pioneers in the NFT and blockchain industry. Some of these services include:

- **Property Management:** Inclusive of renting property to clients, maintenance of technical and visual aesthetic, collecting rents from clients, point of contact for all client-related issues and inquiries.
- **Property Development:** Managing the architecting, designing, and developing the build, as well as establishing on-map development.
- **Consulting:** Helping property owners/renters make important decisions in VR-based real estate using their knowledge of virtual land across metaverses as well as the blockchain industry more generally.
- Marketing: Metaverse Property has strong access to the burgeoning advertising network that exists across the various metaverses. Moreover, the team has considerable experience in marketing various blockchain and NFT-related projects. As such, they have a demonstrated ability to increase exposure and can do so for virtual land or businesses.

Additionally, Metaverse Property has assembled the first virtual real estate investment trust (i.e., Metaverse REIT), providing investors exposure to the best real estate assets in the metaverse without onerous barriers to entry such as developing the technological savvy in the blockchain and metaverse market spaces. Consumers are able to get exposure via Metaverse Property's REIT token: an NFT backed by the company's portfolio of virtual land and real estate.





As shown above, the Cryptovoxels map consists of Origin City in the center subdivided into its 31 disparate neighborhoods (e.g., "Little Tokyo", "Junkyard", "Oasis, "Gangnam", "Midtown", etc.). Scattered around Origin City are additional islands, which in turn represent the continuous land additions that have been made to the Cryptovoxels world map over time.

As alluded to previously, Cryptovoxels' properties take on a broad range of functions and use-cases: from commercial or conference spaces, to art exhibitions and galleries, to residential homes and entertainment hubs, and more. Metaverse Property offers consumers including individuals, institutions, enterprises, and others, land in a variety of premium locations across the Cryptovoxels world. For any inquiries about Metaverse Property's offerings and/or services in Cryptovoxels, please reach out to michael@gda.capital or click here.

Metaverse property is committed to a vision of the future that emulates Ready Player One, where both businesses and real estate will exist in tandem on a new frontier involving both tangible and digital reality. The company endeavors to further this vision and commitment through a core dedication to building better places to call home by doing what's right. Additionally, Metaverse Property is headed by Co-Founders Michael Gord and Jason Cassidy, each with extensive experience in the financial, consulting, software, and blockchain spaces.

Conclusion

The Metaverse refers to a collectively shared virtual space that arises



through the convergence of virtual and augmented reality, as well as the internet. It is widely-considered as the next-generation iteration of the internet, consisting of universally existent/accessible, three dimensional, shared virtual space situated within a larger virtual universe.

This report described the various characteristics, capabilities, applications, and developments within the metaverse, with a focus on its particular implementation in the form of Cryptovoxels: a virtual world powered by the Ethereum blockchain where users can buy land, build stores and art galleries, and more with easy-to-use build-in editing tools, avatars, and text chats for peer-engagement/interaction.

While it's not necessary for users to own parcels to interact with the Cryptovoxels platform, users can do so via transacting for them in the OpenSea marketplace. With respect to building, users can either build on freely-available grid space, build permissibly on other owners' parcels, or build on top of those they own. Building is based on an intuitive drag-and-drop model and entirely doable within the browser.

Users take the form of NFT-based avatars which they can in-turn ornament and customize and are purchasable on the OpenSea marketplace. Their ornamental wearables come in a diverse array of shapes and sizes, are community-generated, and cost-efficiently produced via the Polygon sidechain.

Cryptovoxels is capable of being run on a variety of different engines aside from its own in-browser experience. As described previously, these include VRChat, NeosVR, and Substrata.

The Cryptovoxels community consists of 8969 registered users to date with a social media presence involving 39K Twitter followers, 4412 Discord members, and 698 Reddit citizens. The majority of on-platform discourse and discussion occurs via the platform's Discord channel. While the platform currently isn't decentralized in ownership, there have been some indications that a decentralized, community-centric ownership model (e.g., DAO) may take place in the future. The Cryptovoxels community also hosts a number of events on a regular basis, such as the previously described Litty Pop Up Grand Opening, Purple Party #9, and the Hashrunes Exhibition. Users can document their experience in such events and the on-platform community more broadly via the use of Womp screenshots.

As alluded to, Cryptovoxels runs on a web-browser thereby expanding accessibility, though it benefits from stronger internet and graphics card usage. Property and items utilize the ERC-721 NFT token standard for immutability, verifiability, authenticity, and ease of transferability on Ethereum. Users should use Web3-enabled browsers when using the Cryptovoxels platform, using Metamask, Coinbase Wallet, or the like. Deployment contracts and source code are publicly available, and the



team follows no set whitepaper/roadmap for development, instead using an iterative, community-driven approach for fine-tuning and development.

Cryptovoxels started around April 1st, 2018, and was developed by Nolan Consulting Limited, an independent game development company headed by founder Ben Nolan in Wellington, New Zealand. It now has a team of developers dedicated to working on the project, with strong backgrounds in previous VR applications. They sought to integrate conceptions of the virtual world with Blockchain to create a full-fledged, user-editable, easy-to-use world. Users can keep up with Cryptocovels via the platform's Twitter account, the founder Ben Nolan's Blog, the Official Cryptovoxels Blog, or through Cryptovoxels News on NFT Plazas.

Popular parcels on the Cryptovoxels platform include the Glass Age, Space Age, and Metalith Throne examples as described previously, which have received maximum offers of 6.73 WETH (\$14,478.99), 3.12 WETH (\$6712.40), and 3.135 WETH (\$6744.67) as of writing.

\$COLOR used to be the on-platform currency for microtransactions on Crypto Voxels up until June 2020, after which it became inactive due to its use-case - paying for colored blocks within the world - becoming redundant as a result of colored blocks becoming free on the platform. After this, Ethereum became the currency-of-use on the platform for these same microtransactions, with integrations from Polygon to increase cost-efficiency/stability and over time.

Cryptovoxels also makes use of a carbon offset program to combat the energy-intensive nature of the Ethereum network via their partnership with Offsetra, which has allowed Cryptovoxels to calculate and offset some of their emission contributions to the tune of 1,528,000 kilograms of CO_2 to date.

As with other metaverse implementations, Cryptovoxels has observed a large spike in demand for virtual land/real estate for both buying and renting for monetization, as well as investment and building purposes. The main land area is located in the center of the map and is called Origin City, with 31 disparate neighborhoods; the map has expanded continuously from its initial size of 3026 parcels through the addition of islands. Each parcel is identifiable via unique coordinates, and the parcel - taking the form of an ERC-721 NFT - is the smallest unit of measure on the world map. Like other on-platform items, users can buy/sell land at any instant P2P on Cryptovoxels via OpenSea. Land values, like on other platforms and in traditional real estate, are driven by factors such as road accessibility, proximity to popular areas, build height and area, and more.

As of June 2021, there are roughly 5000 land parcels available on OpenSea (a 65% increase relative to initial amount), with 1300 owner of land, an average price of 2.09 ETH (\$4497.37) per parcels across sizes, and 16,200 ETH (\$34,859,970) worth of associated volume traded to date.



Through persisting trends carrying forward from the COVID-19 pandemic as well as secular growth of the NFT market and technologies such as VR/AR, Cryptovoxels and other such metaverse implementations are primed to observe continued significant growth for the foreseeable future. This will likely be compounded as more brands, commercial interests, and a broader user base enters Cryptovoxels and such platforms, with the value of digital real estate/related assets likely to increase in value as well. In the specific context of Cryptovoxels land, this is likely to reach maximal value as the level of additional parcels added tends towards zero.

Through facilitating the novel and complex process of investing, purchasing, and renting within Cryptovoxels and similar metaverse implementations, Metaverse Property has endeavored to make the process of transacting with virtual real estate more seamless through a variety of service offerings. These include: property management, property development, consulting, marketing, and investment exposure via the Metaverse REIT. As alluded to previously, Metaverse Property provides exposure to a slew of offerings across the Cryptovoxels map and metaverse. Furthermore, Metaverse Property is committed to a vision of the future that emulates Ready Player One, where both businesses and real estate will exist in tandem on a new frontier involving both tangible and digital reality. The company endeavors to further this vision and commitment through a core dedication to building better places to call home by doing what's right.

For any inquiries about <u>Metaverse Property's offerings</u> and/or services in Cryptovoxels, please <u>contact us</u>. You can also follow Metaverse Property on social media: <u>LinkedIn</u>, <u>Facebook</u>, <u>Twitter</u>.



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