

The Fans, Devs, and Remake of Real-Time Strategy Classic LEGO® Rock Raiders

The LEGO Rock Raiders video game is as odd and fun to play with as the theme set upon which it is based.

Both present players with an exploratory spaceship adrift among the stars. Damaged and without power, the LMS Explorer is thrown through a wormhole and lost in space. Fortunately, though, the minifig crew discovers a planet replete with energy crystals and sets about mining them for their ship.

It's an unusually dark back story for the often brightly colored, everything-is-awesome LEGO brick sets – and perhaps that's why LEGO Rock Raiders so efficiently sunk its hooks into its fans.



"I think it's because it affected us so much as children and because we collectively saw so much more potential," said Simon Eriksson, a super fan of the theme set who is also working on a remake of the computer game. "That is one of the reasons I really love Rock Raiders. It had so much beyond just being a game and asset. They were trying to create an entire world. Rock Raiders is a huge love letter to LEGO fans."

A video game developed by Data Design Interactive also empowered the love of the theme set. The real-time strategy game hit Windows PC in 1999 and an action strategy version of the game hit the PlayStation a year later.

Karl White, who was a programmer on the game, said the developer decided to make it a strategy title both because of the theme set's storyline and also because the studio had recently wrapped up development on another strategy game.

LEGO Media International was very involved in the development of the game, with LEGO Media producer David Upchurch often visiting the development studio for a week at a time to play through LEGO Rock Raiders and give detailed feedback.

The studio faced a daunting task: Create a game both challenging and fun, but also one that overcame the natural difficulties of a strategy game to be accessible for children.

The team also had to make a game that wasn't too creepy or violent.

"Many of the creatures went through multiple revisions," White said. "We were very aware of the audience and of how violence is seen within the LEGO world. And, of course, we were very careful not to show any kind of serious injury or anything like that. All of the playable units have a health indicator, and when the health is too low, they're safely teleported back up to the ship.

"It was interesting that you did still get an attachment, and there was a fear of loss without any actual injury or anything like that."

About a decade after LEGO Rock Raiders' November 1999 launch, White stumbled upon Rock Raiders United, a website dedicated to the game.

Rock Raiders United started out as a relatively small, very focused forum in 2008, but over the years has grown to become a place that not only dives deep into the world of Rock Raiders, but also other LEGO themes and video games.

Initially, the fans at Rock Raiders United focused on getting the original PC game working on modern machines. Then it branched out to modifying the game and adding in new content.

Since then, the fans have expanded to working on other LEGO video game classics, ensuring that as many people as possible have a chance to play them. And some fans are even working on their own takes on the game.

All of that passion and hard work is fueled, in many ways, by a love of one game. Alan Sokol, who now runs Rock Raiders United, has a theory about the enduring passion for the game and theme set.

"I think it's two things at first, probably due to the uniqueness of the game," Sokol said. "Now Rock Raiders itself is mostly a real-time strategy game, and there are plenty of those. But there aren't too many games in general where you would dig through the earth, find

things, build things from what you find, that aren't really combat-based. It's a very chill laid-back experience.

"As for the other side of it: Out of all of the LEGO games, I think it's the easiest to modify. If you want to do the basics, you can reskin the game, make your own biomes. So you can make a level that looks completely different. There's a lot you can do just with the basics."

Love of the game also led to a number of fans to recreate it for modern machines. Among them is fan Simon Eriksson, whose *Manic Miners* is both playable and free. The game recreates the entire original experience in Epic Games' Unreal Engine and runs easily on modern hardware.

"I think the original game has a ton of flaws that makes it hard to play on modern computers and hard to appreciate when you're a gamer because there are so many features that you're missing," he said. "And I didn't find a remake project that matched what I wanted from a remake. And that is basically when I started working on my own."

Eriksson said he's spent thousands of hours working on *Manic Miners*, and with the help of other fans, he's managed to nearly complete his version.

"I want to create a good *Rock Raiders* remake that is an homage to the original game or the entire retro LEGO games franchise that happened back in the '90s," he said. "And I also wanted to teach myself how to program games, or sort of how to create games as a whole, because I'm not just programming the game, I'm creating everything inside the game."

With the game wrapping up, Eriksson said he hopes to expand his efforts to include potential work on a sequel to *Rock Raiders* or perhaps recreating another LEGO game classic for modern machines.

Explore more...

In order of appearance:

[LEGO Media International](#) – Wikipedia

[Data Design Interactive](#) – Moby Games

[Rock Raiders United](#) – Official website

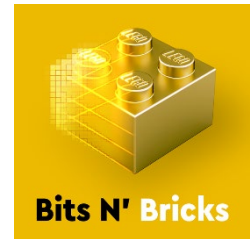
[Unreal Engine](#) – Official website

[Manic Miners](#) – Official website

Transcript

Bits N' Bricks Season 2 Episode 28: The Fans, Devs, and Remake of Real-Time Strategy Classic LEGO® Rock Raiders

July 14, 2021 · 46:29



Prologue – 00:00

Announcer

Please note that this episode of Bits N' Bricks contains instances of misuse of the LEGO trademark, which must always be used as an adjective and never a noun. As a reminder, it is never appropriate to refer to the company that designs and produces LEGO brand products as LEGO. Rather, the correct name for the company overall is the LEGO Group.

Announcer

I hope that was severe enough. Was it severe enough?

Studio Engineer

Yeah. That was great, Ben. We got it.

Announcer

Alright. On with the show.

(Child's voice announcing Bits N' Bricks)

Bits N' Bricks: Introduction and Thoughts from a LEGO Rock Raiders Fan – 00:39

Ethan Vincent

Welcome to Bits N' Bricks, a podcast about all things LEGO games. I'm Ethan Vincent.

Brian Crecente

And I'm Brian Crecente. Together, we look back at the rich 25-year history of LEGO games, chat with early developers and seasoned studios, who have all tackled the creation of video games for one of the most popular and respected toy companies in the world: the LEGO Group.

(Theme music from Season 2 Bits N' Bricks)

Ethan Vincent

Hey, Brian.

Brian Crecente

Hey, Ethan.

Ethan Vincent

So I was recently on a film shoot, and one of the camera assistants there, Ferdinand Köstler. A real cool guy. He's a big country and western fan, which is kind of funny in Austria. But he's very ambitious and very talented, and we were talking during setup and I mentioned, you know, Bits N' Bricks, and you know, the LEGO Group and all that stuff. And he said, "Oh, man, I love LEGO video games, and my favorite game is LEGO Rock Raiders."

Brian Crecente

Nice.

Ethan Vincent

I actually took the time and asked him about it. So here's Ferdinand telling me a little bit about that.

Ferdinand Köstler

This was the first LEGO game I played. I really got into it. I play when I was seven years old. And just putting it up, I remember the strong animated short film in front.

(Sounds from LEGO Rock Raiders)

Ferdinand Köstler

I watched it every time I booted up the game. I was seven years old when it came out, and I was playing it, yeah, for years for years to come.

(Sounds from LEGO Rock Raiders continue)

Ferdinand Köstler

Of course, I bought all the LEGO sets so I could play during the daytime, and then at night I would play Rock Raiders.

(Commercial for LEGO Rock Raiders: "Journey underground to a new LEGO world, and join the Rock Raiders in search of rare Brickonium. Hard rock can't stop your heavy metal drills, but the dreaded rock monster can! Get the Brickonium before the rock monster gets you."

"That was close!" "The new LEGO Rock Raiders collection. Each set sold separately. Batteries not included.")

Ferdinand Köstler

This just strongly remind the atmosphere that you go through. You're in this cave system and it's dark and those shiny green crystals. And the music is just amazing. I can still hear the music in the back of my head, It's like this housey tune. You can get into it and just exploring the depth of the cave has a certain kind of magic to it. And those big drilling machines are really impressive when you're a small boy. And I remember not ever playing until the end. There was the first of like 20 levels. You get to the first low O₂ level where you get time limit and then your LEGO guys suffocate. And I never got through the low O₂ level so I could never finish the game on how hard I tried. I tried giving it another shot years later, but still couldn't get over the low O₂ level (chuckles). I think video games give us in an urban society something that we can't usually get: the sense of like, exploration, danger, adventure, because everything is already explored. You can't just go out and dig in the ground or look for stuff or form up with your friends and go to an unknown place. Every single spot on the map is filled out and so the only way to explore and to get an adventure is in video games.

(Tune plays)

Chapter 1: LEGO Rock Raiders the Video Game – 04:01

Ethan Vincent

It's time to talk about the LEGO Rock Raiders video game. But before we get started, let's get caught up on the theme set. The Rock Raiders theme set was introduced back in 1999 alongside a surprisingly dark backstory for the LEGO Group.

Brian Crecente

Yes! Dark and fantastic. The story is that these minifig Rock Raiders are mapping the galaxy aboard their ship, the LMS Explorer. After wrapping things up, they start heading home and that's when disaster strikes.

Ethan Vincent

Dun dun dah!

Brian Crecente

Disaster! It's always striking. In this case, they find themselves in an asteroid field that pummels the heck out of the ship, leaving it to drift into a wormhole that flings them into a galaxy far, far away.

Ethan Vincent

Uh, I'm not sure we have permission to say that?

Brian Crecente

OK, a distant, a distant galaxy.

Ethan Vincent

There you go.

Brian Crecente

Anyway, the ship and the Rock Raiders are now stuck, damaged and drained of power. So they start scanning nearby planets and they discover one that is packed to its rocky crags with energy crystals. So of course, they start teleporting down into the caverns to mine the crystals as other minifigs repair the ship.

Ethan Vincent

I think I'd stay on the ship to fix it. You know, I'd rather not be a red shirt minifig.

Brian Crecente

Good call. And that's because those caverns are in fact crawling with creatures like rock whales, scorpions, slugs, bats, and spiders. Lots and lots and lots and lots of spiders.

Ethan Vincent

Are you OK, Brian? What's going on? Spiders?

Brian Crecente

I don't like spiders, Ethan. Didn't I did I tell you about the time I drank a spider?

Ethan Vincent

No.

Brian Crecente

Or that one time that a spider spun a web and dangled for my hair? Spiders ...å

Ethan Vincent

Wow, you're sounding like Indy with snakes. I'll note that, but we should get back to the rocks and those raiders. So more than a dozen sets were released between 1999 and 2000 for Rock Raiders. And the set also got three books and a bunch of comics featuring the likes of the old wise Chief, ace driver Axle, and the courageous Jet. It also had two video games, one for the computer and another for the PlayStation. This week, we're going to be digging, no pun intended here, into that first PC game and its passionate fan following. Now, Brian, you had a chance to play the game recently. What was that like?

Brian Crecente

Yeah, you know, it's amazing. We'll talk a little bit later about how I was able to get a very old game to run on a very modern PC. But yeah, it's essentially a strategy game, and what that means is, instead of sort of directly controlling minifigs and going on adventures, what you're doing is you're sort of looking at them from above, straight down, and you're telling them what to do. In this case, you're trying to mine rocks and find crystals. And each level that you play through has different sort of objectives. And so as you do this, you build out your little mining camp, and things will come up on you like you know, some of those noted monsters. It's a lot of fun, and I could see why people are really into it. There are very few strategy games out there, certainly real-time strategy games out there, that are intended, I think, for a younger audience and are essentially non-violent. So a lot of fun to play.

(Tune)

Chapter 2: Development with Data Design Interactive – 07:20

Ethan Vincent

Development on LEGO Rock Raiders started in 1998. After LEGO Media International, the game publishing arm of the LEGO Group, showed off the soon-to-be released LEGO Rock Raiders theme to the video game developers at Data Design Interactive. The presentation included a look at some of the theme's characters, vehicles, buildings, creatures, and of course, the story.

Karl White

It was kind of an easy evolution, I believe, to kind of figure out exactly how the game would develop from there.

Ethan Vincent

That's Karl White, a former programmer from Data Design.

Karl White

So Data Design had recently released another strategy game, obviously a very, very different strategy game, so it was kind of already in the DNA of the studio if you like. It was already kind of front and center in mind how a product like LEGO Rock Raiders could translate into a strategy game.

Brian Crecente

Karl said a couple of very early prototypes were being put together when he joined the company in 1998. He was quickly put in charge of level design in the AI for the minifigs. He also designed the game's user interface, lighting, and helped with the game's in-house map editor, nicknamed Fred. The game's creation was a collaborative effort, Karl White said.

Ethan Vincent

LEGO Media was very involved in the development of the game. They would regularly check in on the team, and LEGO Media producer David Upchurch would often visit for a week at a time to sit down, play through LEGO Rock Raiders, and give detailed feedback. Karl White remembers that the teams at Digital Design and LEGO Media had to spend a bit of time striking the right balance between being easy to play and challenging. That was particularly tricky because the theme-set was designed for children, and strategy games tend to be naturally more complex.

Karl White

I think a large part of it was kind of introducing the players gradually to the different features and also the scale of the game as well. Obviously, we didn't want to drop people right into a kind of massive cavern where it would be quite overwhelming. So certainly while sticking with the storyline, it was starting out as a simple mining mission. And then as the levels progress, we start being introduced to some of the hazards throughout the levels, the rock monsters and the slugs, and a large part of it was just being able to introduce these things to the players gradually, so that they can actually improve and be prepared for the larger levels later on.

Ethan Vincent

The team also had to be careful not to make the game too creepy or violent.

Karl White

Certainly many of the creatures went through kind of multiple revisions. We were very aware of the audience and of how, certainly violence, is seen within the LEGO world, and of course, we were very careful not to show any kind of serious injury or anything like that, if no injury at all. Like one of the biggest components of the game is obviously all of the playable units have like a health indicator, and when their health was too low, they're safely teleported back up to the ship. And again, the same for the creatures, like none of the creatures were ever destroyed or killed. They were pushed away, and they would leave.

Brian Crecente

Karl said the team's communal approach to game development extended beyond just their work on the game. They also hung out together playing video games, going go-karting, paintballing, having dinner and drinks. That camaraderie is baked into the game, too. The

team even included their voices in LEGO Rock Raiders with almost all of the cast voiced by employees. The project manager, for instance, was the game's Chief, and the office coordinator voiced the character Jet. As the game neared launch, a last minute issue led to the team diving into a 36-hour programming session to ensure the game wouldn't ship with a known bug. Now keep in mind, this is back in 1999, so in those days games were burned onto disc and then couldn't be updated once they were. The game launched in November 1999 on Windows PC. Another completely different take on the game by another developer hit PlayStation in August 2000. The PC team was very happy with the response to their game.

Karl White

I think I vaguely remember hearing about it, reading about it online and maybe seeing a couple of reviews, and being quite pleased with how it was being received. And certainly that made me happy as a junior to the industry.

Ethan Vincent

About a decade after launch, Karl White stumbled upon Rock Raiders United, a website dedicated to the game.

Karl White

I was blown away, not just by the fact that this community existed, but like some of the amazing things that they were doing. It was pretty incredible to see such a dedicated and smart bunch of people doing all this stuff with the game. I mean, I think just seeing how these people are now learning more about the inner workings of the game than I ever did, even things that I built, and they know way more about it than I did at the time, just astounds me.

Brian Crecente

When fans of the game on the site discovered that one of the Rock Raiders creators was among them, they peppered him with questions ranging from the game's original concept, to the minutiae of programming, and some of the changes made.

Karl White

It had been probably about 10 years since the release of Rock Raiders at that time. And obviously, I've worked on a lot of other things since then, so I guess it kind of filled my head with a lot of stuff since. But it was exciting for me to actually try and kind of cast my mind back, because it was kind of a great time in my life being able to work on this game, work with the other people that were at the studio. So it was actually a really good exercise for me to be able to reminisce and try and remember as much as I could from that time.

Ethan Vincent

Now more than 20 years since Rock Raiders launch, Karl said he's delighted that people are still playing a game he worked on and talking about it so much.

Karl White

It's the nostalgia, certainly for people that were playing it when they were younger, maybe with their parents. And because of the nature of the game, the strategy aspect, you could be drawn in and absorbed into this game and spend a lot of time in there. And then because the levels, many of them were so open, and it wasn't just kind of a fixed storyline, if you'd like, you could go and explore, you could find new ways of building bases and doing different things with the game. It kind of gave it that lasting appeal that like no two games or no two playing sessions were alike. And I guess that kind of carried through, and the nostalgia of this game that people played years ago and remembering the enjoyment that they had has as kind of stuck with people.

(Tune)

Chapter 3: Fans and the Rock Raiders United Community – 14:09

Brian Crecente

The adult fans of LEGO community is as vast as it is passionate. Spend any time looking for details about your personal favorite LEGO brick themes or video games, and you're likely to find a group of equally interested fans ready and willing to help with anything, from fascinating discussions and historical deep dives, to how-tos, and general camaraderie. When it comes to the short-lived LEGO Rock Raiders theme and its two games, the place to find that connection is fan site Rock Raiders United. Rock Raiders United started out as a relatively small but very focused forum in 2008 but over the years has grown to become a place that not only dives deep into the world of Rock Raiders, but also other LEGO themes and video games. Launched by a man named Jared who also goes by the name Cyrem on the website, these days the site is owned and run by Alan Sokol.

Alan Sokol

At first Rock Raiders United started as a way to just get Rock Raiders running on more modern computers and to experiment with what kind of things you could do to improve the game.

Brian Crecente

This is Alan Sokol.

Alan Sokol

Just a basic modding community. It started, I believe, late 2008. I didn't join until about the summer of 2009, when we were still on the old ZetaBoards forum. Before then, at most, what we knew about the game was how to unpack the files that contained everything – little things, just like images, audio stuff that was just kind of visible without any special tools. Later on, as modding advanced, we gained more insight into how the game worked. We eventually just figured out how to do, not just images, audio, but levels. So we can make custom levels. Custom scripting, so instead of just like collect 45 crystals and complete the level, we could be a little more advanced. We could do custom animations, units. I've made several custom vehicles, like from the ground up. Monsters too. Even Rock Raiders themselves. But a lot of it, beyond the really simple stuff that we had early on, requires really old, specific tools that are hard to get because the companies that made them don't sell them anymore. So there are varying degrees of accessibility for modding Rock Raiders specifically, but most people are probably interested in levels. And that's one of the things that has matured quite a lot. The founder of the forum, Cyrem or Jared, himself made the current best map editor that we have. It's pretty good.

Ethan Vincent

Uh, wait a second. They're not just getting the game to work. They're working on the game as well?

Brian Crecente

Yeah, that's really one of the most fascinating things about Rock Raiders United. At some point, they figured out how to essentially crack open the original game and dig around inside its code. Once there, they discovered all kinds of goodies. Not only did they figure out how to fix things they wanted to tweak, but also reactivated lost bits of code and even modified LEGO Rock Raiders to play in different ways.

(Tune interlude)

Brian Crecente

Alan Sokol got involved in the community back in college. He found himself bored and looking for something to do, and then recalled Rock Raiders, which he still had the disc for. After a little digging around online, he stumbled upon the Rock Raiders community. Here's Alan Sokol.

Alan Sokol

I started out as a normal member. And couple years after joining, I think one of our moderators left, and there was just kind of a void and Cyrem said, "Hey, do you want to be a moderator?" because I had fairly good relations with him at that point. And then over time, years later, Cyrem's real life became busier. He was trying to find work. I think he found a girlfriend somewhere around that time. He's married now. And he wanted to kind

of push ownership of the forum away just because he didn't have much time for it. And I did have the time. So he asked me. He just said like, "Man, I can't take care of this forum anymore. Do you want it?" and I thought like, "Alright, but I don't know anything about web development or web design or maintenance, so you're gonna have to help me." He said, "Alright, cool. Let's transfer everything." So I own the forum, and I pay for it now, but I don't really know what I'm doing (laughs), but I still do my best to maintain it.

Ethan Vincent

Despite the fact that the guy who runs and owns the forum's doesn't quite know what he's doing, Rock Raiders United is a thriving community. But why is that? Alan Sokol has a theory.

Alan Sokol

I think it's two things: at first, probably due to the uniqueness of the game. Now Rock Raiders itself is mostly a real-time strategy game, and there are plenty of those. But there aren't too many games in general where, like, you would dig through the earth, find things and build things from what you find, that aren't like really, really combat-based. There's not too much combat in Rock Raiders. It's a very chill, laid-back experience. So in, I would say like over half the levels, you basically never have to fire a shot. A Rock Raider never has to get teleported back to home base. So it's set apart in that way. As for the other side of it: modifying it. Out of all of the LEGO games, I think it's the easiest to modify once you unpack the game files. Like, images are just there. You don't need a special tool. Audio's the same way. The map editors we have now are mature. So if you want to do the basics, like you can re-skin the game, make your own biomes, so you can make a level that looks completely different. Instead of just a standard rock, ice, lava, you can make it an acidic biome, maybe even a forest. Now it's still going to be limited by the simple geometry of the game, but there's a lot you can do just with the basics.

Brian Crecente

For a time, the folks at Rock Raiders United were essentially dissecting the guts of the original game, digging through everything they could find with the help of a tool they created to see what was left out or changed.

Alan Sokol

Just as you look for hidden things in the game, as you play the game, there are lots of hidden things in the data of the game. We have had former developers, one of them was Karl White, who I believe worked on most of the levels for the game, he had explained how a lot of stuff was cut due to time constraints, like the publishers needed it in time. Or some things were just, they just never got around to them. But yeah, there are some things that were just kind of hidden away that never used, and others where they were present. Like at the end of Frozen Frenzy, you can find the tunnel transport like this big, dual prop helicopter that carries cargo. You can see that in the game only for a few seconds at the

end of the level. It's a vehicle, but you can't use it. It turns out, it's pretty easy to reactivate it and make it a proper vehicle. Some things are missing. It's a little buggy if you don't edit some of the animations, but there's something right there that we've always wanted, like as a kid, "I want to use the tunnel transport, I want to fly that, I want to carry vehicles." And we made a patch you can install, and then you can just go fly it around yourself. So yeah, like all of these little mysteries just within the game, and then within the game code, I think it helped draw people to the forum and to get interested in modifying the game.

Ethan Vincent

Back in those days, Alan was spending two or three hours a day on the forums, still less than when he was in college when he would spend nearly all of his free time on the site. And he's not alone, which brings us to another fascinating thing about the site and its early pursuit of Rock Raiders mysteries in the code: How diverse the backgrounds are of those doing the digging. Many aren't even programmers.

Alan Sokol

So we have a lot of different 2D artists. They make new faces that you can put on the minifigs. We have 3D modelers. That's my forte. Then we have programmers, proper, like Cyrem. There were some others. The tool that we use to open the game's files was originally made by Strider, so that was the linchpin there that let us do everything else. For other games, there's more people who specialize in like, I guess the Traveller's Tales games. So there are people who specialize in just opening those games. And then for LEGO Racers, there's people who specialize in just the files for those games. So I would say it's a collection of specialists.

Brian Crecente

These days, while the love of Rock Raiders remain strong at Rock Raiders United, the site has diversified to take on quite a bit more than just that 1999 game. Initially, they started with an interest games from the same era like LEGO Loco or LEGO Chess. But these days, their interests seem to include just about every LEGO video game. They also provide support for new users looking to rekindle fond memories by playing decades-old games on modern machines.

Alan Sokol

I have seen a lot of interest in the Traveler's Tales games. That's basically everything after LEGO *Star Wars*™, and they have a lot of similarities. That has picked up in the last few years. I think it has also evolved from, not just modding, but also support. There are lots of people who show up asking, "How do I get this game to run? It's crashing when I start it." So we're now no longer just a modding forum. It is a support forum as well, because part of modding is also getting the game to run. And as operating systems keep evolving, and they lose backwards compatibility, we have to find new tricks to keep the games running in order to play them so we can run our mods in the first place. So it just comes naturally

that we have our solutions for, here's how to run the game in Windows 10. People find it through Google searches or even on the LEGO Group's forum. I believe some of the moderators have redirected people to our site. This is just off the top of my head, but I'm pretty sure they have done that before. So, the LEGO Group is definitely aware of us, which can be scary at times, but (laughs) it's nice also that, in a way, the support that we provide is acknowledged in some way.

Ethan Vincent

Support for old games is one thing, but Rock Raiders United's focus isn't entirely on keeping old games running. Some members of the community are recreating the entire game for modern machines. That includes Rock Raiders X, which the site's founder continues to work on, as well as Manic Miners, which is an effort to remake the game in Unreal Engine. For now, Alan's plans are to keep the site running, helping people play those LEGO game classics and waiting for the next big discovery to spur another hunt through code. And all of this effort, empowered by powerful childhood memories.

Alan Sokol

I would say my fondest memories come not from when I was a kid, but from what happened when I rediscovered it in college. When I was a teenager, I started 3D modeling, but it was all self-taught. It was not too good. It was lame. When I got into doing Rock Raiders, I had that catalyst to actually improve and make things that didn't look, uh, bad. So the fondest memories there come from that initial wave of diving into the game, seeing what's possible, and then finally, alright, now I can make all of this cool stuff. I can make all of these new vehicles and monsters and really, not just improve the game, but improve my own skills. And I can see from the very first things I had made for Rock Raiders, I have definitely improved. The old stuff is bad. I look back and say, "This is awful," but that's part of growing. So I'd say Rock Raiders, my fondest memories of it are its ability, or rather it existing as a catalyst to help me grow for 3D modeling specifically, and even in other areas surrounding like, some graphic design, a little bit of programming, other things like that.

(Tune)

Chapter 4: Mods, Recreation, and Remake of Rock Raiders – 27:10

Brian Crecente

With such a passionate fan base, it's no surprise that more than a little work has been put into the Rock Raiders video game. There also have been a number of mods created for the original game, as we mentioned, to add new features, creatures, levels and the like. And

fans of course, as we've talked about, have been working on recreating the original title or making new Rock Raiders games.

Ethan Vincent

Among those currently in development, perhaps the most notable and most playable is the work of Simon Eriksson, a longtime fan of the theme set and original video game. Eriksson, with some occasional help from fellow fans, has been diligently recreating the entire Rock Raiders experience with the Unreal Engine. He's using Epic Games' game engine to give the classic game a modern look and some much needed tweaks. So, Brian, I know you also had a chance to play Manic Miners, which I think is available for anyone who wants to give it a try, right?

Brian Crecente

Yeah, yeah, you can actually go out there and find it. And we'll have a link when we put up our story for this episode. It's pretty easy to install and get going, and I have to tell you, I had a funny experience. I actually started – my first experience playing Rock Raiders was playing this Manic Miners recreation, and then I went back and played the original, and the first thing that struck me is that Simon did such an amazing job of recreating the look and feel of the game. The second thing that struck me was he did such a good job of fixing some of the issues that that first game had. So in that first game, I had miners who would sort of just ignore what I told them to do or would wander off. And I think he really improved that. What's really cool though, is that all of this has been in done in the Unreal Engine, which means that it's got a much higher level fidelity. It looks better, you know, and it sounds better, and it plays better. I, as often happens when I stumble upon a really good game, I thought I was going to play for like five minutes, and I ended up playing, I think, seven levels and yeah, you know, you're digging for things, you start to unlock vehicles like a little truck with drill bits on it, or a vehicle with lasers, and then you start, you know, getting – there weren't any attacks yet. Some of the – the game's not finished yet, so some of the levels were missing things. So for instance, one level when I started playing it at the very beginning said, "At some point we're going to come back and add some creatures." But it gives you a really, really good sense of what the game is like, and again, it's just so much fun. You know, you end up getting into this thing where you're like, it's like, you know, popping bubble wrap, you just want to keep mining and keep expanding the caverns around you. It's so fun to play.

Ethan Vincent

Now that sounds really fun, Brian. I definitely need to download it and check it out. I think that'd be good.

Brian Crecente

Of course.

Ethan Vincent

Yes. Now Manic Miners remains in development, and Ericksson, you know, works to finish up this kind of passion project. He said his love for Rock Raiders goes back to playing the game at a very young age, and that in turn later fueled his decision to spend years of his life recreating a game for all to play for free.

Simon Eriksson

I got the game when I was probably five years old, maybe. And I got a few of the sets and not all of them, unfortunately. There were a few that I really wanted but I never got. Of all the LEGO themes that I got in my childhood, Rock Raiders was the one that stuck with me the most, and I think a huge part of that was just because of the PC game and the way that it immersed me more into this world of the Rock Raiders. As a kid, it was definitely very complicated. I remember I was struggling a lot with a few of the later levels, and when I look back at them now as an adult, I missed, I think they are incredibly easy. All of them except one of the levels is almost cruel. It's called Back to Basics, and it's just infamous in the Rock Raiders community for being horribly unbalanced to deal with.

(Tune)

Ethan Vincent

Over the years, Simon fell in and out of his interest in LEGO bricks and Rock Raiders. First when he was 12, and then later in college.

Simon Eriksson

But I found my way back to the Rock Raiders game, thanks to Rock Raiders United, who had a huge modding community around the game, so that sort of re-sparked my interest in it. So it's been sort of an up and down ride. But Rock Raiders has always been what I come back to when I have a choice.

Brian Crecente

Simon, who studied electrical engineering in school, couldn't help but notice that, while Rock Raiders United was home to a lot of mods and discussions, no one had yet finished creating a playable recreation of the original game, something he yearned for.

Simon Eriksson

As good as I think the original game is, it has a ton of flaws that make it hard to play on modern computers and hard to appreciate when you're a gamer because there are so many features that you're missing basically. The biggest problem is, of course, the bugs. There are a lot of bugs in the game that make it hard to play. One of the most infamous ones is called Idle Syndrome, where your characters just stop working. They just don't do what you tell them, and that was a huge problem and not even the developers knew why that happened. Another larger reason is because the game crashes at random. So even if

you tolerate all the bugs, then the game would just crash whenever it felt like it. And that made it hard to play. But if we're talking design decisions, it felt like the game could have used a bit more time, and a lot of features were cut or not properly tested. I think one of the biggest things that they cut, at least from my point of view, is the spiders. There were supposed to be – there are small spiders in the game and there were supposed to be large spiders as well that entrap your miners when they were trying to do things around the cavern. And this would have been an interesting addition because spiders can be really creepy, but they didn't go ahead with that. And there were also a lot of stuff that was just cut from development, such as the canteen building, which was an early version of the Support Station, but we didn't really know that at the time these things were discovered in the code.

Ethan Vincent

When Simon started digging around in the code, he found quite a bit of unused assets, including artwork. Between the unused art, the buggy game, and the lack of any remake project, Simon decided that if he wanted to be able to play the sort of remake he envisioned, he'd have to create it himself.

Simon Eriksson

I wrote down list of what I wanted a Rock Raiders game to be, basically. One of the most important things was I wanted it to be easy to create new levels for the player to play. I wanted it to be easy to load them and share them, so one of the first things I did is sort of a level editor. So that was the first thing I did and I tested all the features through that. So you can create a level just by interacting from within the game. And then you can create a level file that is just a single file, and send that to whoever you want to share it with. And I figured that was sort of the grunt work that I wanted the entire game to be built on. And then of course, I wanted to potentially implement some cut features such as spiders, and fix all the bugs, and have no crashes so that you just have a pure Rock Raiders experience.

(Tune)

Brian Crecente

The first hurdle Simon faced was that he didn't know how to program a game – or create original art for that game. After a bit of digging around, he came across Epic Games' Unreal Engine, which uses something called Blueprints to allow just about anyone to create a game. His next big discovery was BrickLink Studio, which allows anyone to take a bottomless bucket of digital LEGO bricks and build whatever they want with them. Soon, he was literally piecing together the minifigs, sets, buildings, and vehicles from the original Rock Raiders and recreated the game using Unreal Engine's Blueprints.

Simon Eriksson

So a partial reason for doing this entire project was because I wanted to learn game development myself. I felt that this is something that I might want to do in the future or during my free time. And I had previously, at least touched upon Unreal Engine, because it went free to use a few years before. And it also had a system that some call Blueprints. And these Blueprints were a very intuitive way of interacting with the game engine. So essentially, I used this to learn how the game engine worked as I was developing the game. So then I could just apply in my programming knowledge directly, without knowing the exact syntax of the Unreal language. As I learned more about Unreal and how it works, I have been able to work in C++, which is a text-based language basically, which is actually much nicer than working all with Blueprints, but Blueprints was basically the reason why I chose to do it, because it gave me the opportunity to learn the engine as I was developing the game. One of the largest doubts I had was that I didn't have any significant experience in creating models. I had used Blender to create maybe two or three models, but I wasn't good at it at all. So I figured I need to find a way to create models, and I thought that there is probably some way out there to build models, and then convert them to 3D models automatically. And that's actually what I found. So I built them in a program called BrickLink Studio, which is pretty popular in the AFOL community. And then I could export that as an LDraw file, and the LDraw file could then be imported into Blender as a 3D model. And then I could export that from Blender into Unreal Engine directly. It still required a bit of tuning, there were some things that didn't convert, there were a lot of pictures that I manually had to transfer over or draw by hand, basically. But in the grand scheme of things, it really helped me with just creating the basic models that I can then edit to look better.

(Tune)

Ethan Vincent

As with the number of elements of the remake, Simon relied on the support of Rock Raiders United and its many talented fans to recreate the map of the original game for Manic Miners. He also held a sort of online casting call for voice actors and received audio from a number of talented people, which he was able to put into the game. Simon started working on Manic Miners in May 2019 but didn't publicly announce it for quite some time.

Simon Eriksson

I didn't announce publicly that I was starting it because I had seen other projects do this and it left many people disappointed when it didn't go anywhere. So I started working on it basically in silence. And when I got something, which was after about a month, I posted a teaser to the Rock Raiders United discord, and that got some people excited, so I got like a small focus support group that helped me with a lot of rapid fire feedback during the start of the game. Yeah, then I released the game publicly in August of 2019, and after that I had put up a roadmap of basically updates that were supposed to make the game into LEGO Rock Raiders, just taking one step at a time. So now I've basically been doing this for about

two years, and I'm hoping to finish up the update with creatures in the coming months, but it's been really hard to find time and next to the full-time job I got recently.

Brian Crecente

Simon said it's hard to say how much time he spent building the game exactly, but estimates it's been thousands of hours spread across long weekends, a summer in 2019, and whenever else he can find time. And the result, which is playable today, is impressive, as well as completely free.

Simon Eriksson

I want to create a good Rock Raiders remake that is a homage to the original game or the entire retro LEGO games franchise, basically, that happened back in the '90s. And I also wanted to teach myself sort of how to create games as a whole because I'm not just programming the game, I'm creating everything inside the game. I am finding people to help me when I need help. I've built up this entire community around the game, and I figured out all of that is really good thing to sort of learn if this is something I want to keep doing in the future. So I have considered going into game development, but I'm not really sure. I haven't had a really good offer there yet.

Brian Crecente

Simon also hopes to make his game easily moddable. In other words, he wants other fans of LEGO Rock Raiders and the LEGO Rock Raiders game to be able to make their own changes to his re-creation.

Simon Eriksson

Adding levels is already possible, but I am designing the game from a hopeful standpoint, that modding will be easily implementable, so that you could, for example, add custom vehicles or custom buildings or customize, like new miner clothes, because right now you can actually customize your miners' look. So I collected all the printed pieces from this studio program, all the previous pieces up until 1999, and I extracted the textures from them, and I put them into minifig creator, so if there was a minifig that you had in your childhood from the '90s, it's likely that you can create that Minifigure inside the game and have it running around. So I really want to basically make a game that appeals to the Rock Raiders community and is easy to mod. In the far future, I'm also hoping to make a way to have custom biomes, like custom terrain and custom campaigns, so you can create your own story and have it play like the Rock Raiders story played out in the original game.

Ethan Vincent

As he wraps up his work on the remake, Simon says he's already making plans for what comes next, both for him, and his ideas for Rock Raiders.

Simon Eriksson

I have had some game ideas, of course, and the Rock Raiders sequel is definitely on the table, but it'll take so much work. I also have another VR game idea that's been competing with my mind lately. But if we're talking LEGO games, I would definitely love to make a new LEGO Racers, like either just as a fan project and give it the same treatment as Manic Miners, or maybe do it for the LEGO Group. And I haven't really pitched that idea to them yet, but I know that they have tried making a LEGO Racers game many times since the last releases, but it hasn't really worked out. So that's something I really would love to see is them bringing back, basically every theme that they've ever had, and just put them into this LEGO Racers world in a huge mix and give it some interesting story and interesting races.

Chapter 5: Conclusion – 43:16

Brian Crecente

There's so much energy from the adult fans of LEGO community for some of these older sets and video games. It's so great to hear them talk about their love and memories from these titles. Simon, I think, sums up where all this love comes from for LEGO Rock Raiders.

Simon Eriksson

I think it's because it affected us so much as children usually. And because we collectively saw so much more potential in the game. That is one of the reasons I really love Rock Raiders is because it had so much beyond just being a game and a set. It has so much prototypes that looked incredible. They were trying to create an entire world. There were plans of a TV show that was shelved. It didn't really go through. And this is so much more. Yeah, to me Rock Raiders is just a huge love letter to LEGO brick fans. So it just feels fitting that we would sort of give back to the fans of Rock Raiders in some way.

(Postscript music begins)

Chapter 6: Season Break Announcement – 44:31

Ethan Vincent

Wait, wait, wait, wait a second, stop the credits.

Brian Crecente

What's, what's up? What's up, Ethan?

Ethan Vincent

It's summertime! A time to get out and vacation a bit with family and friends, and that includes us, Brian.

Brian Crecente

Yes, my favorite time of the year.

Ethan Vincent

We're going to be taking a small break over the summer to allow us to recharge our little LEGO motors and start creating episodes for season 3.

Brian Crecente

Yes, that's right. We're going to miss you for the rest of July and some of August, but then we're back.

Ethan Vincent

So keep a lookout for our kickoff episode in late August and until then –

Brian Crecente

Keep building!

Ethan Vincent

Keep building? Is that the best you can (laughs) come up with? Boy, you really need a break, Brian, don't you?

Brian Crecente

Yeah (chuckles).

(Postscript music)

Bits N' Bricks: Credits – 45:13

Ethan Vincent

Bits N' Bricks is made possible by LEGO Games. Your hosts are Brian Crecente and Ethan Vincent. Producing by Dave Tach. Our executive producer is Ronny Scherer. Creative direction and editing by Ethan Vincent. Research and writing by Brian Crecente. Art direction by Nannan Li. Graphics and animations by Manuel Lindinger and Andreas Holzinger. Mixing and sound design by Dan Carlisle. Disclaimer voice is Ben Unguren. Opening's child voice is Milo Vincent. Music by Peter Priemer, foundermusic.com, excerpts from the LEGO Rock Raiders soundtrack, and Henrik Lindstrand, from the award-winning

game LEGO Builder's Journey, which you can play on Apple Arcade, Windows PC, and Nintendo Switch. We'd like to thank our participants Simon Eriksson, Ferdinand Köstler, Alan Sokol, and Karl White. We'd also like to thank the entire LEGO Games team. For questions and comments write us at bitsnbricks@LEGO.com. That's bits, the letter N, then bricks@LEGO.com. And as always, stay tuned for more episodes of Bits N' Bricks.

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