Wireframe

LIFTING THE LID ON VIDEO GAMES

CASSETTE BEASTS

Set the tape for a new kind of monster-collecting RPG

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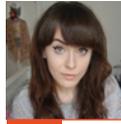24'' GB2470HSU-B1 & 27'' GB2770HSU-B1

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Supermassive Games has rewritten the rules of horror video games

"**Y**ou've seen *Evil Dead*, right?" one teen incredulously asks the other in Supermassive Games' latest horror spree, *The Quarry*. His foot's hovering above the step. Beyond, in the darkness, lies an unexplored basement that's as likely to be filled with demons as it is cobwebs. But these kids are smart. They're as in tune with horror conventions as *Scream*'s Sidney Prescott and pals were back in 1996. And *The Quarry*, in turn, is fully aware of how little separates it from the films it enthusiastically homages. There's a little *Friday the 13th*-style pre-titles carnage, where a jock mindlessly bumbles into the lion's den of a murderous bogeyman. And propping up the young cast are a handful of horror doyens, including Lin Shaye (*Insidious*), Grace Zabriskie (*Twin Peaks*), and David Arquette (*Scream*).

When Supermassive Games released *Until Dawn* in 2015, it signalled a drastic change in direction not only for the British developer, who'd until then stuck with family-friendly IP like *LittleBigPlanet* and *Doctor Who*, but for survival horror at large. The game's multibranched storyline gave players control over action and tone (heroic or chaotic? Take your pick). The use of established stars like Rami Malek and Hayden Panettiere helped boost its credentials. In short, *Until Dawn* rewrote the very meaning of 'cinematic' gameplay. It wasn't merely about replicating aesthetics, but about radically rethinking the relationship between the two mediums. *The Dark Pictures Anthology* that followed applied those ideas to an array of terrors, from ghost ships to Iraqi vampire dens to ghostly colonial towns.

The Quarry even comes with its own set of optional filters, so you can transform your playthrough into a lo-fi indie film production, a black-and-white classic, or the kind of eighties slasher you might stumble across on scratchy VHS. At this point, you really have to start asking the question – how many times do you have to press a button for a game to be a game? Is that too existential?

CLARISSE LOUGHREY

Clarisse Loughrey is the chief film critic for The Independent and co-host of the *Fade To Black* podcast.

#65

What separates *The Quarry* from, say, *Black Mirror*'s interactive episode, *Bandersnatch*, which had you guiding the story at crucial points?

Supermassive has itself acknowledged how thin the line between film and video game can be by releasing Movie Mode, a feature in which you can put your controller to one side and watch *The Quarry* with zero interruptions and zero decision-making. There's a cut where everyone lives, a cut where everyone dies, and an option to play at director by dictating each character's personality before allowing the chaos to unfold.
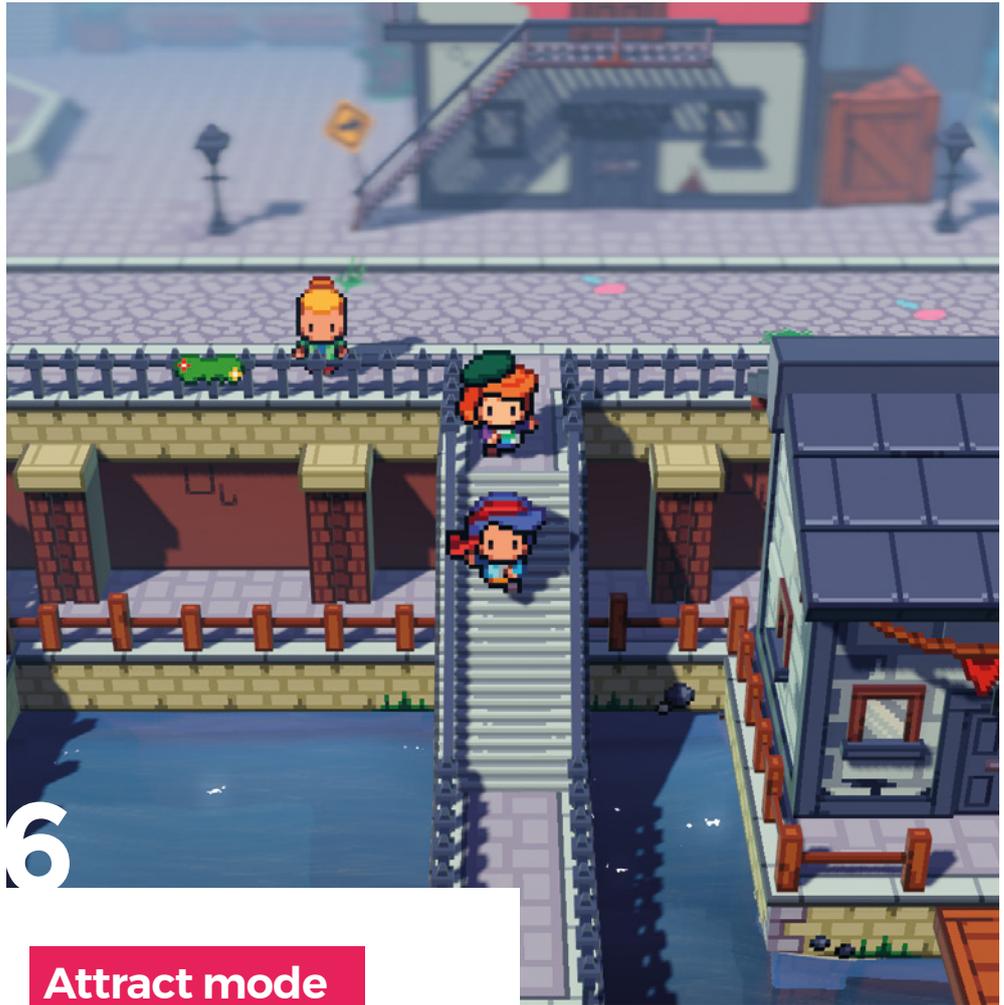
It's easy to brush this off as a sort of black hole effect, where every medium's crushed together into one, amalgamated blob of 'content' – aren't all these CGI-washed blockbusters starting to look like games anyway? But horror, as a genre, has always been a fertile testing ground, a place to launch conceptual rockets at the barrier between spectator and participant. Does a scream, let out by the lowly audience member, mean they've empathised with the figure on screen to the point they feel their own life is in danger?

Movie director William Castle, called 'King of the Gimmick' by filmmaker John Waters, installed vibrating devices under cinema seats that would randomly activate during screenings of his 1959 film *The Tingler*. A year later, for the release of *13 Ghosts*, audiences were handed special filtered glasses that would allow the on-screen phantoms to appear and disappear at will. Would Castle think of *The Quarry* as just another horror gimmick? With gaming traditionally centred on the idea of achievement, Supermassive has offered the somewhat radical position that (in-game) dying can have its own rewards. As studio head Will Byles said in a recent interview, "Officially, you can see it as a win in just terms of 'I got everyone to survive.' And people like that, and that's one of the reasons we made sure that that could happen. As far as the story's concerned, that's the worst horror film I've ever seen. Everyone got through? You want some degree of carnage, that's what makes it a horror." ⓦ

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WELCOME

I've seen it written in several places – including a reader's feature on Metro's website – that 2022 is shaping up to be the worst year for games ever. The line of thinking goes that, the undoubted brilliance of *Elden Ring* aside, 2022's otherwise been bereft of major new releases. Several big titles have now been pushed to 2023, including the much-anticipated *Forspoken*, Nintendo's *Breath of the Wild* sequel, and Bethesda's *Starfield*. With those games all gone, what's the point in getting out of bed?

Well, aside from the looming presence of *God of War Ragnarök* and *Bayonetta 3* on the horizon (they're due for release this autumn), 2022's seen the arrival of a wealth of amazing indie games. *Neon White* is a breakneck delight (you can find our review on page 92). *The Quarry*'s a sharp and tense interactive horror yarn. And then there's the brutal challenge of *Dark Souls*-meets-*Zelda* action fantasy, *Tunic*, or on the other end of the spectrum, the breezy delight of *LEGO Star Wars: The Skywalker Saga* or *Kirby and the Forgotten Land*.

So while it's been a bit of a quiet year for big releases following the February barrage that brought us *Elden Ring, Horizon Forbidden West, Dying Light 2*, and more besides, it's hardly been devoid of brilliance, either. And anyway, if none of those tickle your fancy? It at least gives you a few months to tackle that teetering pile of shame…

Enjoy the new issue!

Ryan Lambie
Editor

GOTTA FUSE 'EM ALL!

Creature collecting gets an analogue upgrade in Cassette Beasts, Bytten Studio's monster-infused indie RPG with an old-school heart

Be it cards, stamps, or 1980s action figures, collecting is a pastime that humans can't seem to escape from. That's why, when we were first asked to "catch 'em all" some 30 or so years ago, we bought into the craze like wildfire and then never really stopped – *Pokémon GO* still has many of us seeking out cutesy monsters in the real world to this day. *Cassette Beasts* is an upcoming turn-based RPG that wears the influence of Game Freak's classic series on its sleeve, hoping to tap into the same wholesome energy while offering some serious tweaks to the format.

Fusing creatures together is at the core of the experience here, with Bytten Studio's spin letting you record the essence of its capturable critters and get creative with unique combinations right from the off. Of course, it all begins with you choosing a starter, and in *Cassette Beasts*' case that means opting for Bansheep's inherent sweetness or Candevil's spooky grin (both of whom you'll catch small glimpses of throughout the following pages). To learn more about how *Cassette Beasts* is setting the tape for a new breed of creature-collecting RPG, we spoke to artist, writer, and studio co-founder Jay Baylis. →
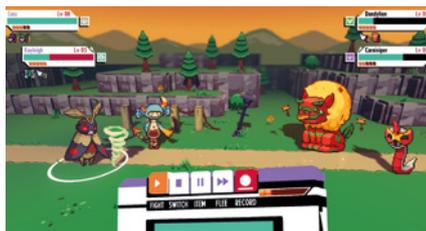
▲ Healing your party involves finding a rest spot and using resources such as wood. It's also a good opportunity to learn more about companions.

How did you first land on the concept of 'recording' the spirit of creatures as opposed to outright catching them?
Both me and Tom [Coxon] worked at Chucklefish on *Starbound* and then *Wargroove*. After that, we split and made our own company. *Lenna's Inception* – our first game – was basically finished, and we talked about what we wanted to work on next. We didn't immediately jump to *Cassette Beasts*, but there's always a sense of like: "Can we do a *Pokémon* thing?" Indie is tough, and working at a publisher previously, we knew that it's a tough business out there. You can't just approach things as a fan-developer first if you think about it as a business, and we were setting up a business as much as a developer. What will sell? What kind of gambles can we make money from? What will be financially viable for us long term?

We came back to the idea of a *Pokémon*-style, monster-collecting game and thought about the angles we would put on it that no one else will ever do. And this is the tricky
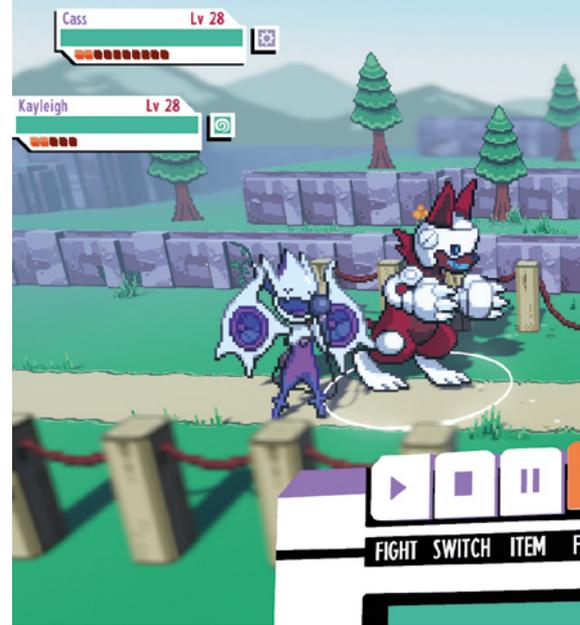

▲ Battling in *Cassette Beasts* should look instantly familiar to genre fans, although multi-creature battles are introduced incredibly quickly.

part because there are a lot of monster-collecting games that go for a *Pokémon* homage. [They're] really good-looking games and they know what they're going for. But, OK, what can we do that's our thing? We like that people like collecting monsters, and what's collecting monsters that isn't capturing pets? We talked about transforming into monsters and how that's quite fun. I think Tom suggested recording things on the tapes and it kind of all fell into place from there.

I guess fusions are one of the big differentiators *Cassette Beasts* adds to the formula, too?
The idea of monster fusions is something I had in mind very early on – even when it wasn't about capturing monsters. Even in the early stages, I was like, 'we can do fusion'. I thought I could pull it off in pixel art. When you look at *Pokémon* games, they always push a headline feature that they can sell the game on... mega evolutions, Z moves, and so on. We approached it like, what can be our flashy 'hey, you can look at this from the outside and immediately understand this is a fun take on it'? *Digimon* has also done a lot of stuff with fusions.

Then there's a huge fan base around *Pokémon* just drawing fusions between creatures, and a fusion generator where people have done crude mock-ups. You can type in two Pokémon names, and it sticks their face onto [another's] body and changes the colours. What if we did a better system based on that? We can actually do it

and Pokémon never will because, not that they can't technically, but Pikachu is an IP they cannot dilute – it's too encased in a brand. But we can launch a game where our headline feature is every monster can fuse and is animated on-screen. No game has ever done that.

Why was it important for you to evoke the style of the original Game Boy-era *Pokémon* games with a chibi art style?
On the personal/fan side of it, I think a lot of the Pokémon have never looked better than they did as sprites. A lot of those early designs were designed to be sprites and that's why they look so great on the DS screen, [whereas] the jump to 3D hasn't been as inspiring. When I was making games as a kid, it wasn't that I was a pixel artist. I was a game artist, and this is how I knew how to make games in GameMaker. But at the same time, with just flat 2D games, a lot of people could be turned off, and there's an element of how can we push ourselves?

We'd never worked on a 3D game ever. How do we push ourselves to the next level? *Octopath Traveler* was coming out around the time and people were talking about HD-2D. And people were really getting into that almost diorama look because of the 3D environments, so we were really excited about the kind of stuff we could do with that. It almost comes off as a branching universe, where Pokémon jumped into 3D. We're like a weird timeline where they stayed pixel art and went more HD. I quite like that, and I also quite like games that mix in high-resolution illustrated UI and character portraits. I really love that combination. Like, *Celeste* does that. It just looks very modern to me.

It means that these games aren't looking retro. We don't really want the game to look

retro as much as look like a modern version of stuff you might remember playing. So it's not like this looks like a Game Boy Advance game. It's like how a Game Boy Advance game looked in your mind when you were a kid, if that makes sense.

There are 120 base creatures to record. That's already a lot, so why did you want to make things harder for yourself with the fusion mechanic?

The way the system works is that every monster is designed twice. Once as a still sprite… For clarification, it's mostly just two of us, but for most of the animations, we have an artist called Michael Azzi. A very, very talented animator. He did most of the base monster animations in the game. He animates them as if it's a single monster, and then I take them apart and design them in pieces and then assemble them in the engine. The fusion system then combines the two assembled ones by mixing their parts up. So every monster is animated from scratch twice: [the second way] in a modular LEGO fashion. That's how basically the system works. It's all procedural.

Obviously, I'm not able to animate a unique fusion for everything and design that. It's physically impossible for anyone to do. So essentially, it's a procedurally generated system where you make a LEGO version and then the fusion swaps those two parts and combines them.

And is it the same fusion for both creatures each time or can it vary?

Yes, although the reverse is also different. So if you use, say, Pombomb as your dominant one and then Bansheep for your second, you'll get Pomsheep and then the reverse is Banbomb, and those are different monsters.

What inspirations did you use to base the various Cassette Beasts designs on?

So there's a few things on this. One thing I really didn't want was for the monsters to look like what people call 'Fake-mons' where these just look like you're trying to make a new Pokémon, right? We didn't want these to look like fake Pokémon. We wanted them to look like Cassette Beasts. That was down to me to figure out. There are a few things… one is that the actual pool of colours is limited. There are ten colours that every single monster shares in our game, which means you can see the shared colour palettes and you kind of associate them all as a set.

There are two rules: one of them is I didn't want anything to be an elemental animal. That's the Pokémon approach: this is a fire dog. This is a grass cat. And then I like the idea of fusing the artificial with physical things, or having [beasts] be reminiscent of pop cultural things or folklore elements. A bit weirder and a bit more action figure-y. Again, going along with those dominant, bright colours, a bit more, like, eighties.

And then another thing is because you're transforming into them, one of my rules is that you can't transform into something that looks like it would be worse in a fight than being a person. You wouldn't want to turn into a worse thing. There were some early monsters I designed where they looked too weak. ➡

▲ Bansheep's candy floss coat makes her your "sweet" choice of starter creature.

MODERN 2D-IFICATION

Bytten Studio is treating *Cassette Beasts* as if it's a traditional, 8-bit era *Pokémon* game from an alternate timeline, where sprites still rule but the look and feel has been polished up to make the most of HD. Not being limited to specific pixel counts, for instance, gives the game free rein to create monsters of any size and scale. Meanwhile, opting to use the Godot game engine makes it easy to achieve an aesthetic not dissimilar to *Octopath Traveler*, where elements of 3D and 2D are fused. This not only ties into the main feature of the game, but it brings added depth to exploration too.

▲ Getting around obstacles like ledges and cliff edges is made easier by transferable creature skills that can be used while exploring, such as a glide.

FRIENDS FOREVER

While six might not sound like a lot in terms of the number of romanceable companions *Cassette Beasts* makes available to you, the goal in strengthening your bonds with them is to prioritise quality (time) over quantity. Kayleigh is a plucky Irish heroine who introduces this weird world to you soon after you wash ashore, but we soon meet the equally affable Eugene – with an apparent penchant for slaying vampires – in our hands-on demo. We get to know both of them a little more when we stop to rest at a camp-fire or local coffee shop, improving our chances in battle via fusing later on.

^ **One of Candevil's first moves is a ranged attack called Bon Bon Blast.**

Do evolutions exist in the game?
Yes, all monsters evolve. It's similar to Pokémon, where some have two stages and others have three. One thing I think *Digimon* does really well is branching evolutions. I love that! So some monsters will have two different evolutions they can branch into – they all fuse. I've seen some people watching our trailer and being like, 'They probably can't have evolutions', or 'they can't have many monsters in the game if they're also doing fusions'. Well, we wanted to make the game where you play it and there are no concessions. We wanted just to go as hard as possible.

We've got 120 monsters. We couldn't quite go for 150 or beyond that because we're already pushing ourselves as much as possible. We thought that was a good middle ground. I mean, the fusion system number puts things up to 14,000. Obviously, a lot of those will look similar and have similar traits, but in terms of unique monsters you can fight, there's an absurd amount.

How do you determine the evolutions you want a creature to branch into?
Sometimes they're hidden. There are little [clues] in the game where we hint at how you can get a secret branching evolution for a monster. Maybe, if you play long enough, you'll see a prompt that encourages your branch.

You've teased that fusions can be strengthened by forming strong bonds with companions. How will this work? Does it share similarities with, say, a dating sim?

It's very *Persona*-y. I really like writing characters. I have this broader theory that game developers, especially at a western, triple-A level, underappreciate the importance of character and bonding with those characters. Look at how much people remember *Mass Effect* versus other sci-fi action games at the time. I think character stays more than anything.

I think there's a huge missed opportunity, and so many games don't tap into that kind of aspect to character. I wanted to write cool characters while going for a bit more of a mature vibe. The *Pokémon* anime's about Brock and Misty travelling with you across the land; in the game you're on your own. We wanted to tap into the party aspect in the anime. We have bits of these characters walking through environments and they'll comment on environment changes. They'll comment on something that's happening in the story and bond with you.

Because we have this thing where you turn into monsters and we have fusion, there are instances where you and a person fuse together. Which is a very weird concept. I think people like weird. I'm actually banking on people appreciating how weird it is. It's very *Steven Universe*. [That TV show] introduced this aspect of fusing and creating new characters out of other characters, and about how that's a personal thing. The stronger your bond with them, the stronger the fusion. We're excited to see how it plays out.

How many companions are there?
Six, and they'll have their own storyline and different personalities. You can see how they react to different things in the world.

Cass and Kayleigh fused into Southnade!

⌃ When you and your companion's monsters fuse, it will see the movesets of both combine and get stronger.

I think one of our angles is: come for the monster fusions, and maybe you'll stay for the characters because that's the stuff you're going to remember.

Are the creatures categorised into different elemental types like *Pokémon*, or does *Cassette Beasts* use another method to have each play distinctly?
They have different elemental types. We don't have the *Pokémon* system of 'fire does twice as much damage to grass'. Instead, we have what we call the chemistry system, where you can provoke status effects by doing certain elemental attacks on certain elemental monsters. Our go-to example is if you do fire on poison, it ignites and burns. So it's kind of 'super-effective', but not in a numerical or 'multiply on damage' way. You can do fire on water – it creates healing steam, which gives a healing status effect. There are weird little combinations like that, where you can chain elemental status effects on monsters.

How much of that will players discover naturally as they play?
We have little pop-ups that explain it. That's been one of the more challenging aspects: to go for something quite different and sell the player on how it works, introducing elements as they go.

Creature battlers of this ilk don't always have voice acting, so why was it important for you to include it in *Cassette Beasts*?
I'd worked previously with *Wargroove*. I handled a lot of voice acting early in that, and I like voice actors. I think it's humbling

to write some silly dialogue, and have someone professional perform it. It brings life to characters, and I think also an appeal to the business standpoint. It makes a game feel a bit more high-budget, especially when you're trying to convince people this is a premium product. Also, the characters are meant to be quite real. They're not fantasy characters; they have regional accents and stuff like that. Having voice actors sells that these are meant to be real people. Because you have to bond with these characters and maybe romance them, having a sense of what they sound like tells you a lot.

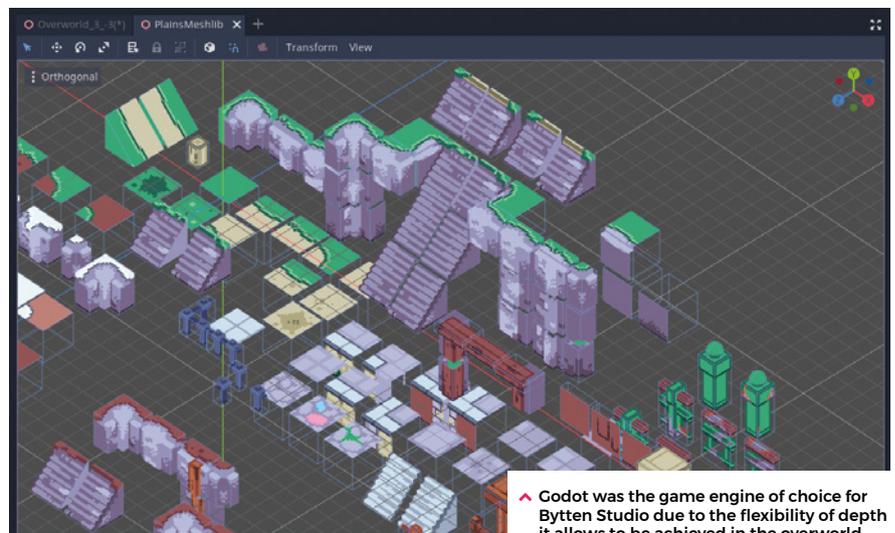**What reasons do players have to explore, aside from narrative progression?**
We're playing into the classic anime trope, 'you landed on a mysterious island', but

we're deconstructing that a little bit. What does it look like when people end up in a world full of monsters that are like normal people? How does it affect you? And how does that affect other characters? The prologue sets up what the rest of the game is and your quest. Essentially, you're looking to find a way back home. Other characters have their own reasons for wanting to go back to their own worlds. We're big fans of *Zelda*. *Lenna's Inception*, our previous game, is a *Link's Awakening* homage. That's Tom's favourite game ever, so we tapped into that more. We've got this island. How do you explore? What interesting stuff can you do? How does the society work? What's its history? It gives us a sandbox to play around with.

Are you prepared for an avalanche of fan art should *Cassette Beasts* really chime with people?
I'm all for fan art. I like to see this stuff. This all started from me making Pokémon fan art when I was a kid. It's the most humbling thing you can have as an artist. I hope people like our game enough to do fan art. It can be horny if they want. That means they're really enthusiastic in a way that I didn't intend. I'm here for that. ⓦ

Cassette Beasts **is scheduled to launch on PC and consoles sometime in 2023.**

⌃ Godot was the game engine of choice for Bytten Studio due to the flexibility of depth it allows to be achieved in the overworld.

Rainbow islands

Game director Phil Crifo talks through the origins and ambitions of his studio's tropical sandbox, Tchia

I s it possible to be *too* ambitious as an indie developer? Certainly, French studio Awaceb hasn't taken the easy route with its sophomore project, *Tchia*. A physics-based, open-world adventure that takes in a diverse island setting, multiple modes of traversal, combat, and lots more besides, it's a considerable step up in scope from the outfit's first game, the 2D platformer *Fossil Echo*. Indeed, the sheer wealth of ideas in *Tchia* are of a scale you'd expect from a major studio – and yet the team behind it amounts to only a dozen or so members. "It's fairly small for the scope of game we're making," admits game director and studio co-founder Phil Crifo. "We allowed ourselves to be a bit crazy with what we wanted to do, just because everyone was so passionate about what we're making... a lot of ideas were flowing, so we
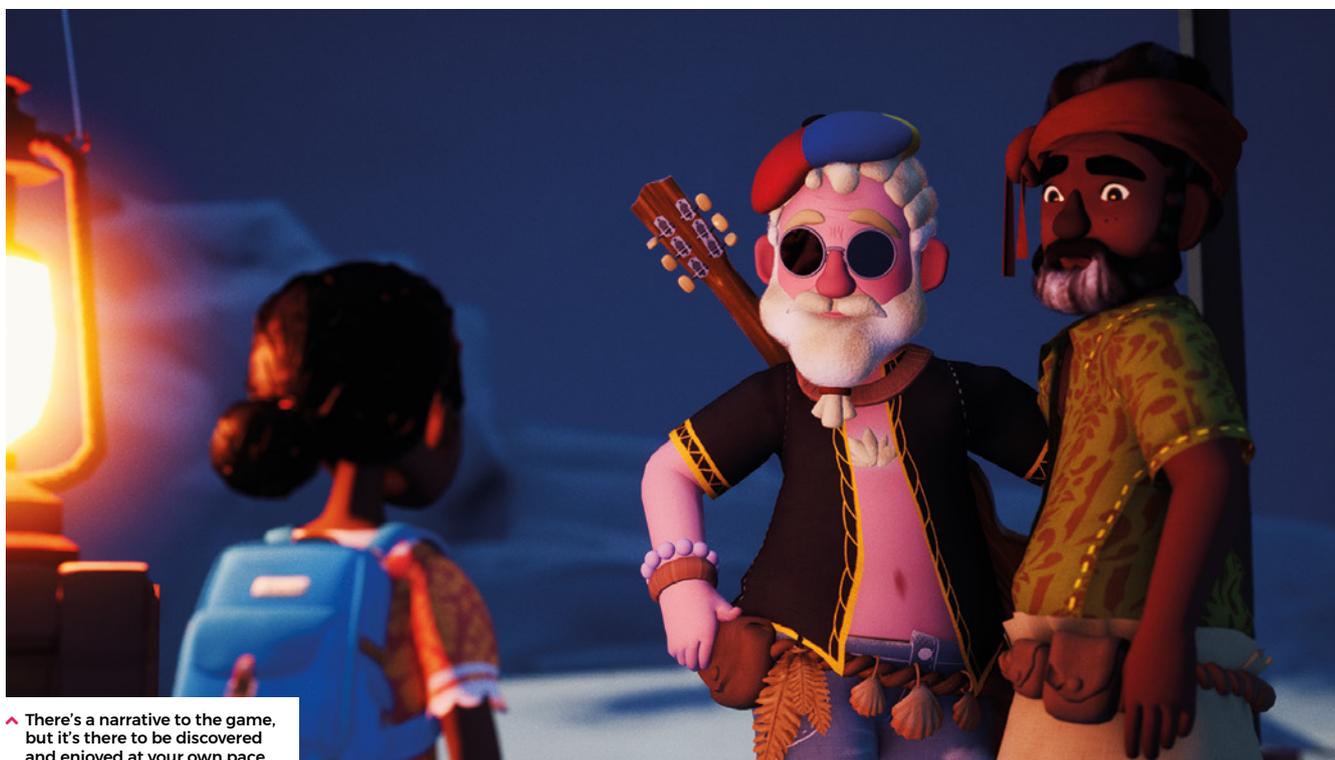
committed to a lot early on. But once we were committed, we had to see it through."

Set on the azure shores of New Caledonia, *Tchia* sees its titular heroine embark on a journey to rescue her father, who's been spirited away by a mysterious figure. Along the way, she connects with her latent, magical powers: most obviously, her ability to 'soul jump' into just about any object. She can inhabit the body of a gull and soar into the air; she can possess a crab and use its claws to snip open locked chests. She can even leap into inanimate items like lanterns, causing them to roll off a ledge and start a fire. It's all part of a game that Crifo says is intended to "feel like a toy box".

Back when the project got started, Awaceb comprised just two developers: Crifo and his co-founder creative partner, Thierry Boura. Its first game was, as Crifo describes it, "a very garage thing" – a small project that "was really about just making sure we're able to ship something." With the ambition of encapsulating their island home and its vibrant culture in a video game, Crifo and Boura began building a simple prototype. "For our second game, we definitely put more thought into what makes us different as a studio, as a creative team," Crifo says. "It was pretty obvious from the very early days that New Caledonia was our cultural origin, and that it was something we should tap into to make something unique..."

Tchia's soul-jumping ability means she can assume the abilities of all kinds of objects and creatures – including crabs.

▲ There's a narrative to the game, but it's there to be discovered and enjoyed at your own pace.

I don't think we would have made an open-world sandbox if we didn't have the cultural background to build that world on."

The duo's prototype concentrated on movement ("free-climbing, gliding, stuff like that") and also an early iteration of the soul-jumping mechanic. With that proof of concept up and running by 2017, Awaceb began shopping it around would-be publishers – and it was around this point that Crifo first heard about Kowloon Nights, a newly formed investment fund pitched squarely at indie developers. Crifo emailed off his pitch, not expecting much in return, and was surprised when he received a positive reply – within weeks, the studio found itself in the company of such developers as Thunder Lotus Games (which made the acclaimed *Spiritfarer*), Sloclap (*Sifu*) and the eminent Fumito Ueda (*Shadow of the Colossus*). "That was pretty exciting for us, because sometimes, when you're a very small studio with no notable prior games, it can be tricky," says Crifo. "But they put their trust in the game early on – and also in us, because we're just two people, and obviously the game couldn't be done with just two people. So they weren't

"We allowed ourselves to be a bit crazy with what we wanted to do"

just funding the game – they were funding us to be able to build a studio... I think that was the biggest step towards making the game possible, to be honest."

That funding allowed Awaceb to grow to a core team of 13 full-time developers, and together, they've spent the past five years constructing their archipelago – a place where it's possible to dive into the Pacific on the hunt for pearls, pick your way through dense forests, or explore the concrete sprawl of city. It's not a one-to-one replica of the real New Caledonia, and certainly not the unfeasibly huge expanse of something you'd see from a triple-A studio – but then again, that wasn't the team's goal in the first place. "On the technical side, I think we had to be smart in terms of scale and how we lay out content," Crifo says. "We're such a small team, so we're not going to make a gigantic, open-world map. It's more condensed but with a lot of stuff to do rather than super expansive."

And there really is a lot of stuff to do in *Tchia*: when you aren't taking on the forms of animals and inanimate objects, switching outfits, sailing around on our boat or following the breeze on ➜

IT TAKES TWO

Before he got into game development, Phil Crifo trained as an animator. His background was in cinema and CGI, but he always found himself gravitating toward the video games industry. And while his skills were artistic rather than technical, his childhood friend Thierry Boura helped cover the programming side of things. "We never really planned it," Crifo says, "but we grew up playing friends together, and it just made sense when we graduated from our respective schools. I was like, 'It might be a good time to make a game together.' [Boura] joined up with me in France, and we set out to make one... It's a good, creative balance. I try to give a visual and cinematic flair to our games, and that definitely comes from that animation background, but there's also a whole technical aspect that's instrumental in making it all possible."
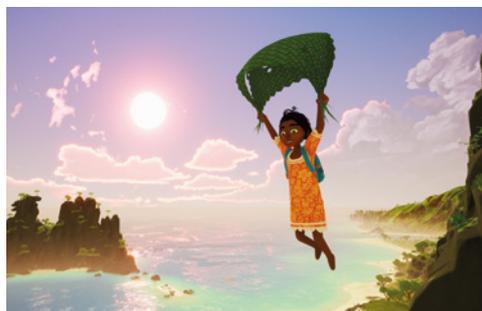
⌃ Unreal Engine isn't "super-designed for open-world games," says Crifo, but argues the platform's tools have still helped make the game possible to make with a small team.

DIVERSE VOICES

Awaceb's commitment to capturing the sights and sounds of New Caledonia extends to its voice cast. Rather than using trained actors, the studio decided to use genuine New Caledonians talking in their own languages. "The back and forth to New Caledonia to record voices, and translating the script to local languages [was a challenge]," says Crifo. "A lot of our cast came from scouting people from all around – just visiting places to find people with the right personality and seeing if they can act and read the script. It was an intense but gratifying human adventure to cast and record those people, because they're not faking being from there – these are real New Caledonian folks lending their voices. It was hard but super rewarding, and I think it makes the game unique."

your glider, you can simply sit and play your ukulele. It's this latter element that, we'd argue, speaks volumes about Awaceb's approach to game design. Crifo describes the ukulele-playing as being akin to *Guitar Hero*, but there's far more to it than that: you can play major or minor notes and chords, and you can even bend strings to alter their pitch. Rather than make a simple minigame, the studio made a full-featured instrument that can be used in a variety of ways throughout the campaign. "It's something that goes into our 'toy box' philosophy," says Crifo. "You can learn soul melodies, and if you take out your ukulele and play them, it impacts the world – attracting animals, sprouting magical
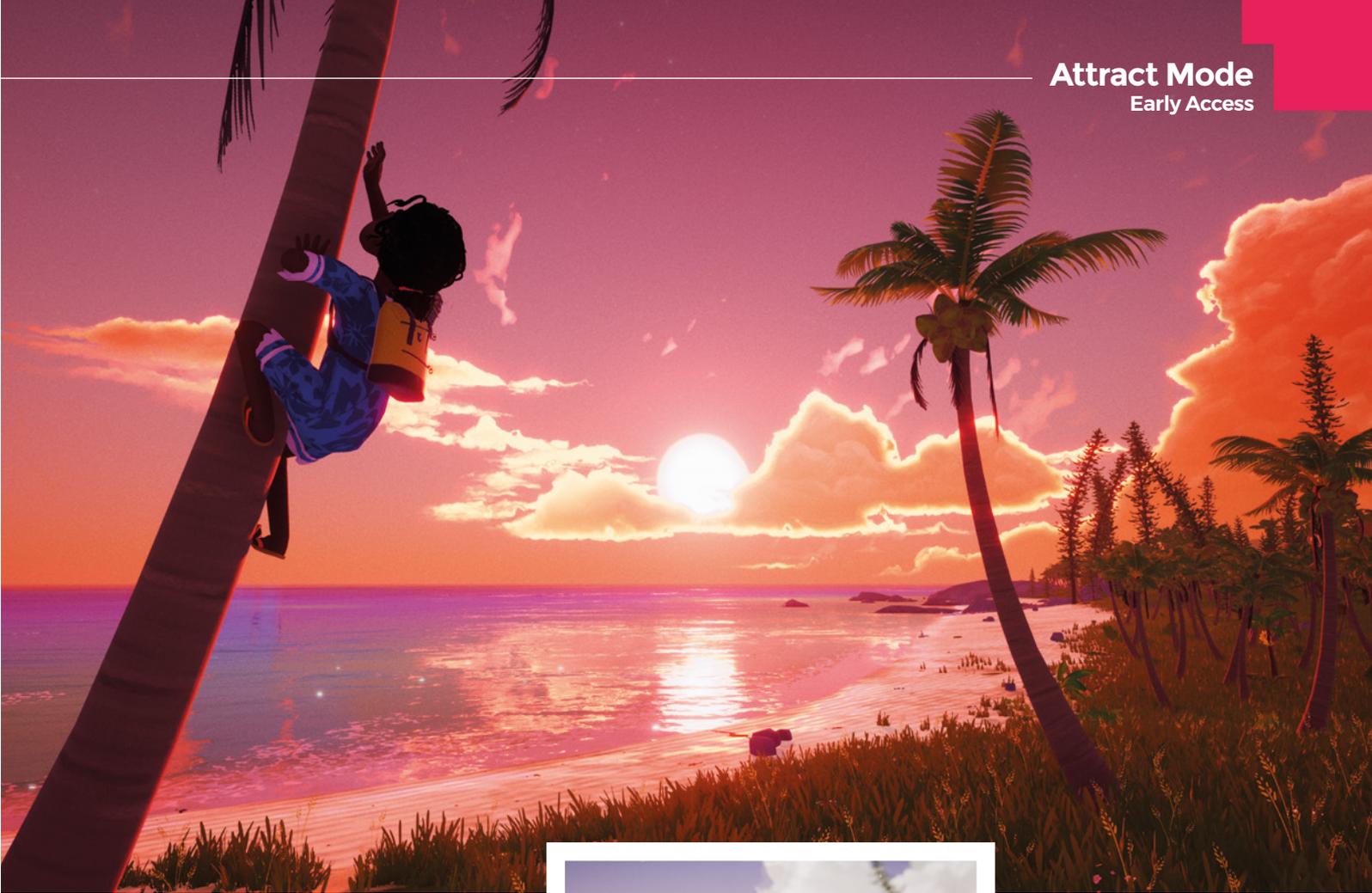

⌃ Your glider is one mode of flight; you can also possess birds if you want a more nimble way of getting around.

plants that have unique abilities to help you with exploration and combat... there are rhythm segments that you play with characters you meet at certain points in the story."

The ukulele is also one of several aspects of the game that are closely tied to New Caledonian culture; Crifo and his team are intent on not just using the place as a pretty backdrop, but as a source of inspiration for its story and mechanics. "Music is so ingrained in New Caledonian culture that it was really important for us to have that aspect," Crifo says. "Making a button-mashing rhythm game out of it would've felt a bit underwhelming. So yeah, we went a bit overboard, but I think it makes for a really fun mechanic."

There's also stealth and a smattering of combat in the mix – the latter coming to the fore as the adventure goes on and the tone begins to darken. But even when you're fighting the game's rag doll-like, long-limbed enemies, the same toy box-like sense of freedom remains. "You can't just beat enemies up," Crifo explains. "It's more evasive. Being spotted is pretty dangerous, so you try to either prevent being seen or you evade enemies, because you can't just fight them up-front. The creatures are magical and made of fabric, so the only way to get rid of them permanently is to burn them up, so you can
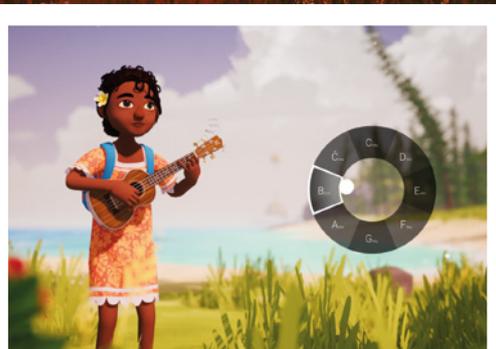
^ The ukulele's handy for unlocking things around the game map, or you can just sit back and come up with your own tunes.

^ There's a day-night cycle in *Tchia* as well as weather effects. The team experimented with making rain affect the player's ability to climb, but the idea was later dropped.

use explosive props like an oil lamp… it's about improvisation. What do you do? There's a prop here – do I soul jump into it or glide away? Do I slingshot the head of the enemy to stun it for a few seconds? It's those moment-to-moment decisions that make it exciting."

All these interlocking mechanics aside, Crifo says the team's biggest challenge wasn't just technical, but tonal: can an adventure game really capture the nuance of a place that has taken in colonialism, slavery, uprisings, and a variety of languages besides its official tongue, French? "Early on, one of the challenges was, how do we honour the culture? How do we make something that's not derivative, just because we're building something light and joyful, how do we take inspiration from a place that has a lot of history that wasn't always joyful? That was one of the big questions we asked: how much do we tap into the darker, more intense part of New Caledonia, and how much do we stick to our idealised view of it? I think we struck the right balance with that."

Initially scheduled for release this year, *Tchia* has now moved to early 2023 to allow extra time for polish. At this stage, it's too early to say whether the studio's managed to clear the high

"We went a bit overboard, but I think it makes for a really fun mechanic"

bar it set itself; what is evident, though, is the youthful energy and enthusiasm Crifo and his team have poured into their blue-skied sandbox. "It's what I mentioned early on about us being maybe a little bit too passionate about what we're making," Crifo says. "But we're just going the extra mile with everything. All of our decisions are dictated by that early core idea – of making a toy box… I'm super excited to get it into people's hands. I know it's going to resonate with New Caledonian people, but I'm confident it'll resonate with people all around the world, too. That's the challenge we set out to achieve: to make it universal." Ⓦ

Beyond the realms of possibility

How one team of ex-BioWare developers are hoping to rewrite
the survival game rule book with Nightingale

Info

GENRE
Shared-world,
crafting, survival

FORMAT
PC

DEVELOPER
Inflexion Games

PUBLISHER
Inflexion Games

RELEASE
Q4 2022 (Early
Access)

SOCIAL
@PlayNightingale

ollowing a 17-year tenure at BioWare working on storied franchises like *Mass Effect*, *Star Wars: The Old Republic*, and *Baldur's Gate*, Aaryn Flynn is determined to get another game out the door. With a résumé like this, you might assume it a relatively easy prospect, yet already Inflexion Games has had quite the journey. Having originally secured funding from British tech start-up Improbable, which wanted to support studios working on cool things, plans quickly changed. Improbable went in a different direction with its Spatialize technology stack and, therefore, so did Inflexion, finding another investor in Tencent, which was happy to support its in-development survival game while simultaneously giving Flynn and co. improved creative control.

But with such a strong background in authored RPGs, why did the Inflexion Games

CEO choose to go the shared-world survival route for *Nightingale*, the studio's debut title? "I certainly like shared-world games in the sense that it's a bit different to what we were doing in the past with some of our bigger titles being single-player," says Flynn, regarding his latter BioWare releases. "But the notion of shared world just leans into some of the social trends we're seeing in games. Social doesn't have to be strictly multiplayer; it can be everything from asynchronous multiplayer to just really interesting ways to share what you're creating and what you're working on. I think we were lucky to take a bit of a wider view of what it means to be shared world."

Based in a setting that mixes traditional fantasy elements in with a gaslamp, steampunk-like tone and aesthetic, *Nightingale* sees players step into the role of a Realmwalker. These are folk with the rare power to walk between different worlds, deploying craftable cards that open up realms to let you and friends discover and obtain useful resources that only exist there. Each realm has been purposely designed to present its own unique ecosystems and challenges, sure to keep you and any brave co-op companions fighting and surviving for your life. The journey back to the magical city of Nightingale is intended to be a long, but no doubt rewarding shared experience.

Shared-world survival games don't tend to pay as much attention to narrative and lore

▲ Every realm beyond the portals poses an unpredictable threat, but you can influence certain elements depending on the cards you deploy.

❯ Reaching the lost city of Nightingale is meant to be a challenging process. Groups are encouraged, therefore, to build temporary homesteads in between expeditions.

All the realms you visit are procedurally generated, but based on themed ecosystems implemented by Inflexion.

as *Nightingale*, especially in time for when it launches in Early Access later this year. However, bringing in such narrative elements is just one way Flynn hopes to make it stand out. "We see certain trends like hero's journey stories in games because nothing is going to put you in that world as well as a big RPG or single-player adventure game," he explains. "But at the same time, isn't it great to create your own story? Isn't it great to finish a session with some friends? A former colleague of mine called them story engines, and that's pretty cool."

This sentiment further highlights Inflexion's goal to have *Nightingale* be a conduit for player-created stories that are totally unpredictable alongside the wider, overarching one being constructed by the studio. After all, what good is 'finding your own fun' in randomised realms if you don't have an ultimate goal to work towards? There's lots of alternate history to dive into.

"In our game, magic has been with the world now for hundreds of years," says Flynn. "It came along simultaneously with the Renaissance. Nightingale becomes this city that is the heart of magical studies, with people from all over the world coming to try to study and understand magic. At the start of our game, in the late 1800s, a magical cataclysm has descended on the earth. People are fleeing it, and you, as a player, attempt to use the portal network to get to Nightingale from where you are, [only] that doesn't work. The cataclysm affects the network,

which ejects you way out into these realms, and you have to survive."

Crafting the correct realm cards using discoverable recipes will be key to understanding Nightingale's mysteries. "If you want to go to a desert, you can play a desert card. If you want to go to a swamp, you play a swamp card. If you want to force things to be night-time, because certain things come out at night that you want, or certain mushrooms come out at night, for example, you can force it to be night-time," explains Flynn. It isn't Inflexion's intention to overwhelm players with a complex system, but rather empower them by streamlining how cards work. "This is our opportunity to give a lot more agency to players in terms of what they're going to experience on the other side of these portals." Plus, party members having different realm cards encourages collaboration.

In between crafting, first-person combat, base-building, realm cards, and other survival mechanics, *Nightingale* spins a lot of plates. Who knows if its attempt to deepen the genre will be enough to engage shared-world enthusiasts? But an Early Access launch should give Inflexion enough wiggle room to adapt as necessary. "It's important that the experience we put out on day one is very strong and resonates with players," says Flynn. "Then we have the opportunities to grow it and to give more adventures to those who really fall in love with it." Ⓦ

STRANGER INFLUENCES

Despite Inflexion making a concerted effort to have *Nightingale* look unique through its alternate history setting, director Aaryn Flynn couldn't help but be influenced by the work of one particular English author. "Neil Thompson, our art director, put me onto a book called *Jonathan Strange and Mr Norrell* by Susanna Clarke. It's just a really compelling story about magic being rediscovered in Napoleonic times by two men that become wizards, and how it changes the course of history. That book was a big inspiration for us that kicked off the earliest parts of the conversation."

Picture yourself
in a boat on a river

Taking a serene look at the end of the world with Highwater,
Demagog Studio's upcoming turn-based strategy adventure

Info

GENRE
Turn-based,
adventure, strategy

FORMAT
PC

DEVELOPER
Demagog Studio

PUBLISHER
Rogue Games, Inc.

RELEASE
December 2022

SOCIAL
@demagog_studio

⌄ Each ally you recruit
boasts unique skills and
abilities useful during
turn-based battles, but
surrounding items can
come in handy too.

C ontrary to how it's presented in a lot of dystopian fiction, ecological collapse won't see the Earth consumed in a ball of flame. Rather it's wet. Really wet. So envisions Demagog Studio, whose upcoming game *Highwater* was one of the standout showcases during Summer Games Fest earlier this year; its vision of a world consumed by harsh flooding against a pastel colour palette was truly a unique sight to behold. Scenes of skyscrapers and islands engulfed by high tides were a regular occurrence, all as a lowly boating crew try and sail their way through it in search of safety.

With small-scale indie hit *Golf Club: Wasteland* already under its belt and apocalyptic platformer *The Cub* in development alongside *Highwater*, the end of the world is a setting Demagog's titles have swiftly come to be defined by. "We simply find reality fascinating," says CEO and creative director Igor Simić, on the studio's interest in the subject. "Across the globe, floods are frequent and reported almost daily in the news. And actually, if you think about the history of storytelling from Mesopotamia, the Nile, and Noah's Ark, floods

are a reality-inspired, recurring theme elevated to powerful stories about nature, humanity, and the divine. We're just continuing that tradition, but through gaming."

It's clear that *Highwater* has a strong dialogue with the team's other two games, opting for a minimalistic art style and simple premise in order to convey its lofty ideas. This time, however, the journey centres on player-character Nikos and his group of friends travelling through the flooded regions by boat. Along the way, they open up new passageways and uncover islands populated by other survivors, and sometimes have to confront ne'er-do-wells in classic turn-based fashion. Gameplay is clearly a major step-up compared to, say, the pared-back swinging depicted in *Golf Club: Wasteland*. It further emphasises the need to fight to stay alive in this world, as opposed to simply being able to kick back and "enjoy" its gentle views.

"Nikos is our party leader, but you also have playable team members such as Josephine, Rimbaud, Lin, George, Laura, and other people who all have unique abilities, skills, and boosters the players can pick up along the way," Simić explains. "Turn-based combat has a puzzle feel with a lot of environmental interaction where the player will be able to use items – rocks, shopping carts, bottles, cans – and also big objects – lamp-posts, billboards, signs – in combination with their own makeshift weapons to survive conflicts with Alphavillians, Insurgents, and other common people."

Battling against these various other factions will mostly take place on land, as expected, but travelling between these places via the water is intended to be just as evocative and meaningful. *Highwater* will give players the chance to experience environments they would otherwise think of as mundane in an extremely surreal manner. The opportunity to do this isn't lost on Simić and his team: "Going through urban environments by boat is an uncanny experience. You're suddenly floating by the third floor, entering apartments, people living on roofs, highways turned into lakes." Haunting imagery like this, he adds, simply wouldn't be possible if the player were travelling by car or foot.

Pushing you to explore such neighbourhoods as the Hightower safe zone, Humboldt Botanical Gardens, and the Silicon Valley-inspired city of Alphaville (where the elites reside) are rumours of an imminent rocket trip to Mars. *Highwater* begins roughly a week before this supposed launch is set to happen, with Nikos and gang hoping to escape the fate of the world by snatching a place away from the ultra-rich. This main narrative throughline is mostly linear, Simić explains, and isn't intended to be subtle, but exploring every inch of these distinct territories means finding "side strands that not everyone will discover". Shane Berry, as your returning resident pirate radio host from *Golf Club: Wasteland*, will also provide context to the situation as your mission to Mars becomes clearer.

It's hard to look at *Highwater* – or any of Demagog's other games, for that matter –

"Our ambition is much higher than 'raising awareness'"

and not think that the studio is trying to say something about the state of humanity. And while sailing past brutalist architecture against the backdrop of a neon-pink sky is undoubtedly beautiful, the sight of floods is something Simić himself is all too familiar with. "I was in college in New York during the New Orleans floods and was in Serbia during the floods in 2015," he explains. "Most recently, in Europe we had floods in Germany towards the end of 2021. These are only examples of places where I either knew someone affected or was in the proximity and was able to lend a hand."

Despite personal ties to the game's ecological subject matter, though, Demagog primarily wants to create a fun and thoughtful experience that again neatly fits into the category of chill apocalypses it specialises in. Simić hopes people play *Highwater*, enjoy it, and come to their own conclusions about where humanity is at. "We have no intention to teach anyone anything," he concludes. "We're simply inspired by our own experiences and the reality we're already living. Our ambition is much higher than 'raising awareness'. The goal of our games, animations, music, and stories is the salvation of the human spirit. Because that's what games are best at." Ⓦ
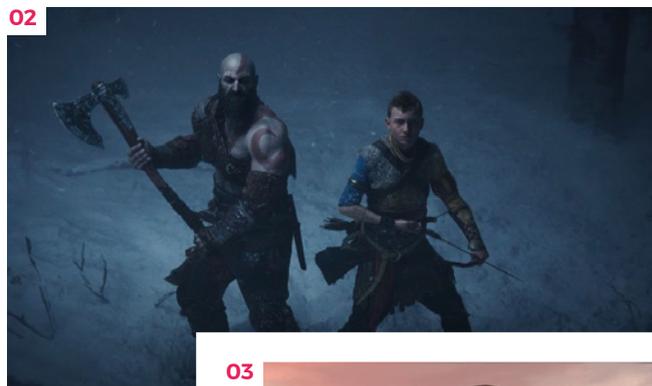
THE LAST LAUGH

Highwater may appear serious and melancholy on the surface, but there's plenty of levity thrown in, too. Says Simic: "We're not doing apocalypse porn. We're not relishing the 'end of the world'. We're turning the idea of mainstream apocalypse on its head, by making it comedic. From the perspective of dinosaurs, we're living in their post-apocalypse. So, the current human predicament isn't that special. From the grand perspective of space, it's actually kind of funny if you have a Monty Python sense of humour. We're doing non-escapist entertainment."

That was the month that was

02

01

03

01. Back from the DE3d

After E3 sat it out earlier this year, the ESA has now announced it's partnering with ReedPop (the event organiser behind PAX, Star Wars Celebration, and more) to produce 2023's in-person show. "We're going to build a world-class event to serve the global gaming industry in new and broader ways than we already do," ReedPop president Lance Fensterman boasted. The question now becomes: can a physical event maintain the same relevancy in an age when publishers have recognised the value in digital showcases? Either way, it'll be nice to have announcements whittled down to just one week, rather than several.

02. Ragnarök (and roll)

This year's holiday release calendar was looking a tad sparse in the wake of *Starfield* slipping and Square Enix's *Forspoken* being bumped to January. Thank heavens, then, that PlayStation's resident shouty bald man has stepped in to give players something to look forward to. *God of War Ragnarök* only had a tentative 2022 release date before, but Sony Santa Monica finally confirmed via a blog post that it would be gracing PS4 and PS5 consoles this 9 November. The news came in tandem with the reveal of multiple special and collector's editions that will most definitely bankrupt us. Ouch!

03. True crime

Grand Theft Auto: The Trilogy – The Definitive Edition didn't do Rockstar's original run of PS2 era open-world sandboxes justice. Plagued by grammatical errors, choppy visuals, and just a general lack of TLC, revisiting Liberty City, Vice City, and San Andreas wasn't as nostalgic as it arguably should have been. Well, the sins of the past have not been forgotten it appears, as it's been reported that Rockstar had similar plans to remake *GTA IV* and the original *Red Dead Redemption*. Efforts to do so have since been shelved, however, due to *The Definitive Edition*'s overwhelmingly poor reception.

Psychonauts 2 getting a boxed release with the "*Motherlobe Edition*" this September

Unreal 5 demo *The Matrix Awakens* goes the *P.T.* route, delisted on digital storefronts

05

04

06

04. By the blade

One of the most prominent *Elden Ring* community members is a player called Let Me Solo Her, known for their high skill level and willingness to aid in other people's games via summon. Such chivalry hasn't gone unnoticed by Bandai Namco either, to the extent that the publisher recently gave them an actual sword after they passed another major milestone. "This community is one of the most passionate and dedicated people I've ever seen in a game," they wrote in a tweet, "and I'm proud to be a part of it." Now to see if in-game skill converts to real life.

05. Splash-tastic

We here at Wireframe are suckers for a great-looking special edition console. Nintendo has been killing it in this area more than most as of late, evidenced further by its reveal of an exclusive *Splatoon 3*-themed OLED model Switch. It replaces the standard version's white dock and Joy-Con with etches of inklings and squidlings, with the latter enjoying two-tone colours that blend from yellow to green on the right and purple to blue on the left. *Splatoon 3* promises to look beautiful on the OLED, so this special edition celebration makes sense, though it won't come with the game included.

06. Less than glittery

One of the best aspects about Microsoft's backwards compatibility push is how it lets players enjoy titles from all console eras, including Xbox 360. However, Xbox Live Gold members who are used to acquiring these gems on a month-to-month basis might want to brace themselves, as it was announced in a message to subscribers that the program has "reached the limit of [its] ability to bring Xbox 360 games to the catalogue". The well has simply run dry, with additions formally coming to an end this October. Luckily, 360 games claimed up to this point can still be enjoyed in full.

UK competition watchdog investigating Microsoft's planned Activision purchase

Skull and Bones is a real pirate game that actually exists, launching 8 November

07. Suck it

Grasshopper Interactive's *Lollipop Chainsaw* was a cel-shaded hack-and-slasher that celebrated its tenth anniversary back in June. And out of nowhere its brand of rude and crude fun is set to return next year, it's been announced, by way of a ground-up remake. Creative director Suda51 and co-writer James Gunn (yes, that one) won't be involved, but the game's original producer Yoshimi Yasuda will oversee the project through his own studio, Dragami Games. "Our goal is to make it easier for gamers who want to play *Lollipop Chainsaw* to do so," Yasuda explained. "Please look forward to the game's 2023 release."

08. That's Anno of that

No fewer than 15 multiplayer games will have their servers shut down from 1 September onwards, Ubisoft recently confirmed in a statement. Admittedly, most of the titles affected are over ten years old, as the move will supposedly allow the publisher to focus on "delivering great experiences for players who are playing newer or more popular titles". Titles set to lose multiplayer support include *ZombiU*, *Splinter Cell: Blacklist*, and *Assassin's Creed Brotherhood*. At least *Anno 2070*'s developers, Ubisoft Mainz, will try and keep its city-builder alive by upgrading the game's "aged online services infrastructure to a new system".
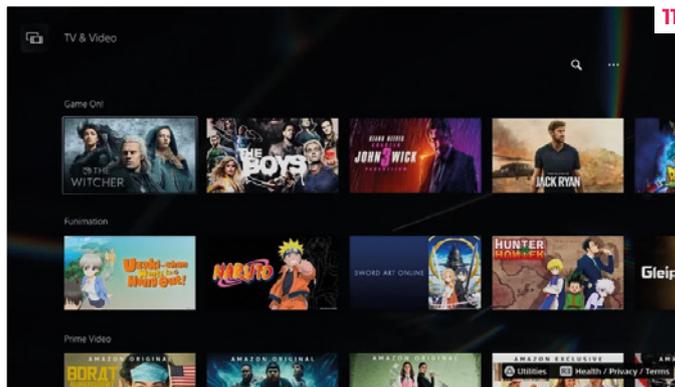
09. Rewrite the stars

Last year's surprisingly excellent *Guardians of the Galaxy* game impressed everyone with its great writing and nuanced character dynamics within the group. That's why it's exciting to learn that Mary DeMarle, lead writer on that game (as well as *Deus Ex: Human Revolution* and *Mankind Divided*), has just been hired at BioWare as a senior narrative director to help out on *Mass Effect*. While this probably means Commander Shepard's next space adventure is farther off than expected, it surely bodes well for how meaningful players' interactions with companions will be. That said, anything is better than *Andromeda*.

Rockstar confirms support for *Red Dead Online* is winding down, focusing on *GTA 6*

Terminator "will be back" in a new open-world survival game published by Nacon

10. Press play to pay

Another month, another idiotic attempt to make NFTs relevant. This time, however, the industry wasn't having any of it immediately. The Polium One is a console allegedly "powerful enough to run high-performance games and will be easy to use for a traditional gamer who doesn't understand Web 3". Polium's ambition is for its console to run games built on different blockchains, but it's hard not to be sceptical of the claim it can run games at 8K HDR, 120 fps with ray tracing simultaneously, particularly when it's only 25% the size of a PS5. We hope Polium moves along, as we already have.

11. User error

PlayStation had already stepped away from directly selling movies and TV shows on the PSN since August 2021, but the assumption has always been that any content purchased beforehand would remain accessible to users. Licensing agreements being what they are, however, has meant that people in Austria and Germany will soon lose access to any purchased Studio Canal films. "As of 31 August, 2022," a notice on the PlayStation website read, "you will no longer be able to view your previously purchased Studio Canal content and it will be removed from your video library". Talk about digital diddums…

12. It's a knockout

Despite a distinct lack of Keith Chegwin references, since going free-to-play, *Fall Guys*' brand of fumbling multiplayer managed to attract a staggering 50 million players in its first two weeks. This figure was no doubt assisted by Mediatonic's title launching on Nintendo Switch and Xbox (in addition to PlayStation consoles and PC, where it was already available), but it bodes well for the near future success of this surprise lockdown hit. "We're in absolute disbelief…" the *Fall Guys* devs wrote on Twitter. Now it falls – ahem – to them to maintain this momentum across all platforms.

Nintendo unveils new $270 LEGO set featuring The Mighty Bowser. Let's-a-go!

It's update day! DSi and Wii Shop channels live again following a four-month hiatus

Incoming

Goat Simulator 3 ⬆

The caprine sandbox mischief continues, this time with four-player local or online multiplayer, an assortment of new minigames, and the added ability to customise your goat with a selection of horns, hooves, and other accessories. If you're wondering whether you missed *Goat Simulator 2*, then don't worry – developer Coffee Stain Studios says its latest outing "skips the sequel and goes straight to the third game." We might be wrong, but we're starting to get the impression that the studio isn't taking this series all that seriously.

Anger Foot ⬇

We have fond memories of People Can Fly's 2011 opus, *Bulletstorm*, so any modern FPS that lets us blast villains or kick them clear across a room has our vote. *Anger Foot* is, if anything, an even more wilfully absurd beast than *Bulletstorm*, though; its gaudy levels are largely cramped interiors, while its lizard-like enemies look like they jumped out of a 1990s cartoon. Then there's the action: it sees you smashing down doors and pulverising enemies with a thrust of your foot, while a variety of guns let you take care of goons hanging around in the distance. It's all enjoyably, mindlessly frantic.

Layers of Fears ⬆

Despite the months of rumours, it looks as though Bloober Team isn't secretly making a *Silent Hill* sequel after all. One game we know the Polish firm is definitely making, though, is *Layers of Fears*, a follow-up to its two previous *Layers of Fear* games that were – funnily enough – heavily inspired by *P.T.*, Konami's demo for the subsequently cancelled *Silent Hills*. Expect more spooky paintings, slow walks through Gothic buildings, and blood-curdling tales of intergenerational trauma.

Video Horror Society ⬆

Following in the same anxiously-pulsing vein as titles like *Dead By Daylight*, *Video Horror Society* is an asymmetric, 4v1 horror where a quartet of teenagers are stalked by some form of monster. The thematic twist is that it's set in the 1980s, so its monsters emerge from the outsized boxes of a VHS rental store. There are werewolves, big killer dolls, and things that look like gargoyles come to life. The players cast as teenagers, meanwhile, will get to defend themselves with a variety of outlandish weapons. Early signs point to a tense and varied free-to-play action game.
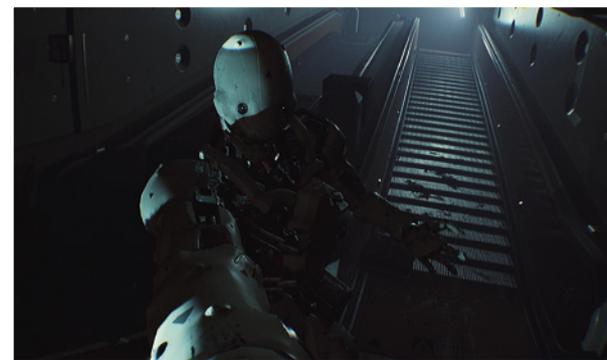
Starfield ⬆

Starfield is big. We know this because of all the stats reeled out when Bethesda's Todd Howard introduced a 15-minute gameplay trailer in June. The upcoming RPG has 100 star systems and 1000 explorable planets. There are five factions that exist uneasily in its sci-fi universe, which range from space pirates to a mega-bucks corporation to a fanatical religious group straight out of Frank Herbert's *Dune*.

Clad in a brown leather jacket and matching shoes, Howard excitedly described the studio's work-in-progress as "like *Skyrim* in space," and "like NASA meets Indiana Jones meets The League Of Extraordinary Gentlemen – a group of people that are searching for answers."

That's a heady mix and no mistake, though it's worth noting that online reaction to Bethesda's latest reveal hasn't quite matched Howard's enthusiasm. Some pointed out that the location shown off in that gameplay trailer, a moon called Kreet, isn't exactly a great image to kick off with; it's certainly a far cry from the exotic landscapes of, say, *No Man's Sky*. Others noted that the doll-like, staring NPCs look a bit outmoded among all the current-gen textures and lighting effects.

Still, this is a Bethesda game we're talking about – and given just how many features it's packing into its bulging space opera, we're still keen to get our hands on it when it launches in 2023.

ROUTINE ⬆

More horror, this time set in an abandoned lunar base. This first-person chiller's been in the works for about a decade now, and made a surprise reappearance among the line-up in June's Summer Game Fest. With its eighties-themed, retro-futurist setting, this could be about as close as we're likely to get to an *Alien: Isolation* sequel. Here's hoping that developer Lunar Software don't keep us waiting too much longer before the actual launch.

The Last Case of Benedict Fox ↩

Imagine *Metroid Dread*, but filtered through the cosmic horror of the Cthulhu Mythos, and you have *The Last Case of Benedict Fox*. You play a snappily-dressed detective investigating the murder of a young couple, and who suddenly finds himself dragged into a quagmire of unholy cults and reality-bending monsters. Even if you're feeling a bit jaded about the whole Metroidvania genre, the depth, colour, and detail that developer Plot Twist has put into its Lovecraft-'em-up is hard to deny.

Witchbrook

Like Harry Potter crossed with *Harvest Moon*, *Witchbrook* is an RPG and life sim where you enrol as a student witch at the titular college. You'll get to explore, forage for ingredients for your spells and potions, and hurtle around on your enchanted broomstick. When you aren't studying, there'll be plenty of other things to do, like photography, gardening, or maybe a quick cuppa at the local café. Brought to life with some utterly charming isometric pixel art, *Witchbrook* looks like another cosy gem from developer-publisher Chucklefish.

Aliens: Dark Descent

We need to get through this entire mini preview of Tindalos Interactive's upcoming squad-based action game without once quoting from the 1986 movie on which it's based, because doing so is such a cliché these days. But will this be a quality licensed title like the fabulous *Alien: Isolation*, or a disappointment like *Aliens: Colonial Marines*? If it's the latter, then it's game over, man. Game over. *(You're fired – Ed.)*
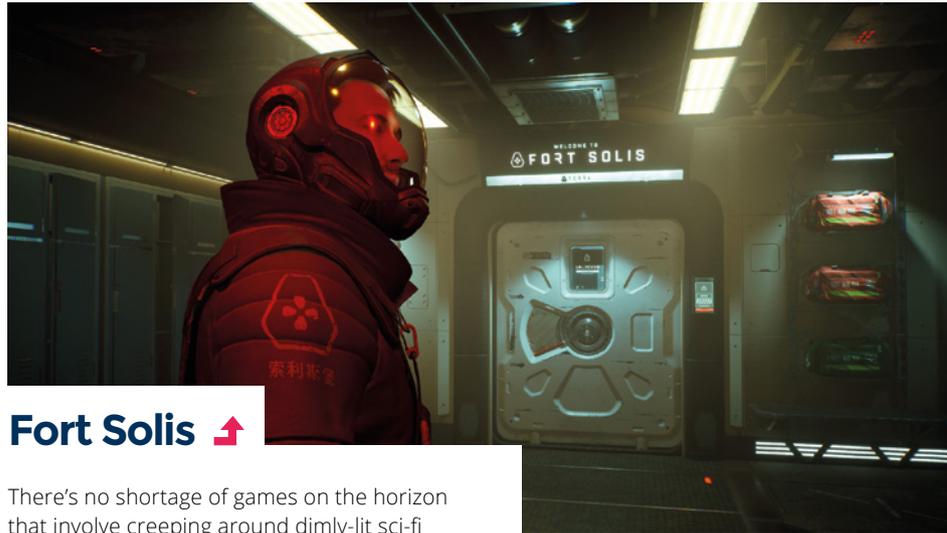

Hello Neighbor 2

Hello Neighbor felt like a bit of a missed opportunity on its release in 2017, but that hasn't stopped publisher tinyBuild from turning the stealth-horror game into a franchise. With its first proper sequel, meanwhile, comes the hope that developer Dynamic Pixels can deliver on the promise of the original: once again, you're a reporter investigating your sinister neighbour. And again, the neighbour's AI behaviour will adapt to your actions, turning every encounter into a tense battle of wits. Will it fix the iffy controls and uneven gameplay of its predecessor? We'll find out when the sequel releases in December.

The Day Before

Could this be an unofficial prequel to *28 Days Later* or *Day of the Dead*? Certainly, *The Day Before* has all the post-apocalyptic chaos and armies of gnashing undead you'd expect from those movies, and then there's the usual antics you'd expect from an open-world survival MMO: exploring the husks of devastated buildings, hunting for resources, and gunning down legions of ghouls. It's not entirely original, then, but it's definitely pretty-looking from what we've seen so far: its abandoned cities and sprawling American countryside really do look good enough to eat.

American Arcadia

In the future city of Arcadia, nothing is quite as it seems: what looks like a bustling metropolis is in reality the set of a deadly TV show where citizens with the lowest viewing figures are summarily executed. It's a great premise (recalling the paranoid sci-fi of Philip K Dick and nineties movie classic, *The Truman Show*), and the game itself looks refreshingly varied. There are side-scrolling platformer sections, but these are joined by first-person segments full of stealth, hacking minigames, and puzzles to solve. Capping it all off is a retro-seventies aesthetic of wide lapels, boxy TVs with faux wood panels, and saucy fondue parties. We may have made that last one up.

Fort Solis

There's no shortage of games on the horizon that involve creeping around dimly-lit sci-fi corridors, admittedly. But *Fort Solis* looks more low-key than, say, *Dead Space* spiritual successor, *The Callisto Protocol*. There are no howling space monsters to be found in *Fort Solis*'s trailers, and barely a drop of blood. Instead, there's just you, a humble space engineer, despatched to a spookily quiet mining base on Mars. Can he find and rescue its missing crew? Prolific voice actor Troy Baker, who plays a medical officer in the game, describes *Fort Solis* as "*Dead Space* meets Duncan Jones's *Moon*," so maybe there will be a bit of gore tucked away in here after all. More news on this one as we get it.

Choo-Choo Charles

British train travel can be pretty terrifying, but that's mainly because of the exorbitant prices of tickets and sandwiches from the buffet car. *Choo-Choo Charles*, meanwhile, offers up a different sort of locomotive horror. You guide your train around an island, completing missions and occasionally hopping off to clean up the tracks or collect items. But also roaming the tracks is Charles, a carnivorous train set on hunting you down. Your only option: upgrade your train and weapons, and hope you can take out Charles for good. It sounds brilliant.

BEATLE MANIA

WE EXPLORE THE BEATLES' SUBTLE
INFLUENCE ON GAMES DEVELOPERS
OVER THE LAST HALF A CENTURY

WRITTEN BY
JACK YARWOOD

RIGHT   SCORE   WRONG
0   0   0

BEAT THE BEATLES
PRESS START

CLUE:
LETTERS WORDS PENALTY SCREEN VALUE
0   0   0   0   0

∧ *Beat the Beatles* is not much to look at today, but is still an interesting oddity for fans of the group to track down.

It's impossible to ignore The Beatles' influence on both music and film. The Fab Four were responsible for some of the most influential albums of all time, from *Abbey Road* to *Sgt. Pepper's Lonely Hearts Club Band*, and starred in several important movies, including *A Hard Day's Night*, *Yellow Submarine*, and *Let It Be*. Their music and films have inspired generations of artists, and led to countless books – all of which aim to document their impact on pop culture at large. But one aspect of Beatlemania that has always remained somewhat underexplored is their influence on video games and their creators.

From hobbyists to professional studios, many developers have paid homage to The Beatles over the decades, but much of that history remains either buried or forgotten. We recently set out to track down as many creators as we could to hear their stories, and try to document The Beatles' impact on video games as had never been done before. This task had us looking back to the rise of home computers, and early fan projects from the eighties.

"I WANTED A COMPUTER AND HE WAS A WEALTHY MAN, SO HE GAVE ME HIS AMEX CARD"

THE FIRST BEATLES GAME?

Rich Levin first heard The Beatles' music when they played *The Ed Sullivan Show* in New York, on 9 February, 1964. Sat in front of a black and white TV in his aunt's house in Philadelphia, he didn't quite understand what he was witnessing at first. But after the band's 15-minute segment was up, his confusion transformed into a lifelong fascination with the group.

He listened to their records, watched their films, and read everything he could about the Fab Four. Then, in 1983, he created potentially the first Beatles video game – an unofficial text-based quiz called *Beat the Beatles* for Atari computers. "I wanted a personal computer, because I was into *Pac-Man* and the arcades," says Levin. "And I

wanted the Atari 800 specifically because it had the best renditions of the arcade games. *Pac-Man* looked like *Pac-Man*. *Defender* looked like *Defender*. I didn't want an Atari 2600 in my house. That's not computer games to me. So I said to my dad's boss [who owned a mall kiosk at the time], 'If you buy me a computer, I'll program some software.'

"I didn't mention to him I had no idea how to program," he adds. "And that I flunked general math and geometry and everything, except for my computer algebra class in high school. […] I'm innumerate. I count on my fingers. But I wanted the computer and he was a wealthy man, so he gave me his Amex card."

Levin travelled to Sam Goody, a music store that also sold computers, and spent $2500 on an Atari 800, with 48kB of RAM, a cassette drive, no monitor, and no disk drive. He then threw himself into learning BASIC, using ➔

BEATLE QUEST

Marsh released a text-only version of *Beatle Quest*, under the name Number 9 Software, for the Commodore 64 in 1985. Another version with graphics followed later that year for the ZX Spectrum. Reviews at the time were mostly mixed. Computer & Video Games scored the Commodore 64 version 0 out of 10, criticising it for its lack of Beatles' music and finding fault with the "distasteful" references to drug-taking, while Your Computer gave the game a positive review, calling it a "nostalgically enjoyable experience". The consensus among most reviewers was that it was a must for dedicated Beatles fans, but general audiences wouldn't get much out of it, which seems about right considering our own experiences playing it.

a book called *Your Atari Computer* by Lon Poole, Steven Cook, and Martin McNiff. He knew he had to make a video game, but he wasn't quite ready for player-missile graphics yet, so he came up with an alternative idea: a quiz game based on his love of The Beatles. "I'm a huge Beatles fan," Levin says. "A day doesn't go by that I don't listen to *She Loves You* and fairly loud. They were one of those things that make you wonder if there was a god. Because the cosmos came together to create this thing. The stars aligned, and if you follow The Beatles' story, there are so many turning points that could have gone in different ways, but they didn't."

Levin filled his game with facts he thought only hardcore Beatles fans would know, including questions about former members and locations the band once visited – though he also implemented a clue system to give any struggling players a lifeline. He released the finished game, *Beat the Beatles*, under the name Interactive Software in 1983, collecting money from customers via post and sending off the packaged floppy with a self-booting executable and a hand-typed manual. For promotion, he ran a competition to see who could beat the game first, placed quarter-page ads in A.N.A.L.O.G Computing magazine, and visited fan conventions like Beatles Fest (now known as The Fest for Beatles Fans), where he bought a booth.

"We had the game running, and it created quite a stir," says Levin. "I remember one guy came up to me and he didn't understand what the game was. He thought it was an action game – of course, everything back then was shooters. He thought it was like a 'Kill the Beatles' kind of game. He brought over a German version of a Beatles album that said *Die Beatles* and he was [yelling]. I was like, 'Dude, no. That's not what it's about at all.'"

This promotional push lasted for about a year, with the game becoming a successful money-maker for the young developer. Buyers, for the most part, seemed satisfied with the product, but the game wasn't without its flaws. It contained spelling errors, some oddly phrased questions, and a linear structure that took away from its replay value. Nevertheless, in 1983, it was a one-of-a-kind experience for fans of the band.

"A couple of years ago, I thought, 'I wonder if there's any internet memory of *Beat the Beatles*'," says Levin. "I did some googling around and I actually found some guys have put it into emulators, so you can still play it. So, I might have the distinction of doing the first Beatles game, but it wasn't officially licensed. I didn't even think to do that. I was always worried I was going to be shut down with a copyright claim. But it never happened. It probably never got big enough or made enough money for anybody to care."

BEATLE QUEST AND BEYOND

Following Levin, Japanese developer and publisher Konami released the arcade game *Mikie* in Europe in 1984. The tale of a Japanese schoolboy collecting hearts to make a love letter for his girlfriend, it was one of the first video games to officially license The Beatles' music, containing chiptune versions of Beatles songs like *Twist and Shout* and *A Hard Day's Night*.

GIVE MY REGARDS TO BROAD STREET

Prior to *The Beatles: Rock Band*, Paul McCartney worked on another licensed game, *Give My Regards to Broad Street*, for the Commodore 64 and ZX Spectrum. Based on the 1984 film and album, it technically isn't a Beatles game as it focuses on McCartney's solo work. Argus Press Software was responsible for the game, with McCartney acting as an advisor. "The game was built around rebuilding a lost song of Paul's by tracking down Paul and his band members across a huge map of London," says Ron Harris, managing director of Argus Press Software. "As the player progressed, they built up the track and it then played back to them via the computer. Bear in mind these were early days for games and getting something, anything, to produce recognisable music wasn't easy! But this was the bit that fascinated Paul, and at first, that was very much the focus for him – he didn't want something that played one of his tracks poorly. It had to be the best it could. We had a number of meetings with him and his team at the offices in Soho Square as the development ran its course. He was very supportive and easy to work with, whilst keeping us on our toes on the design side."

▲ On loading up *I Beatles e il Papiro Della Pace*, you're greeted with this static-y image of an iconic *Sgt. Pepper's Lonely Hearts Club Band* photograph.

You start your journey in a Liverpool bedsit next to the girl from The Beatles' track *I Saw Her Standing There* and a mysterious rattling phone.

Graphic artist Alan Aldridge designed the cover art for *Beatle Quest*. He'd previously done album covers for The Who and once served as The Beatles' official design consultant.

Hobbyists and developers were beginning to realise the potential of The Beatles in games, and Beatles fanatic Garry Marsh was no exception. In 1985, he licensed the band's lyrics from their UK publisher Northern Songs for his adventure game, *Beatle Quest*, for the Commodore 64 and ZX Spectrum. He'd grown up in a one-parent home, listening to his dad's music, like Bill Haley, Frank Sinatra, Dean Martin, and Elvis Presley. So when his dad eventually discovered The Beatles, the young Marsh also became obsessed, collecting memorabilia and sticking their pictures on the living room walls. "I've been a Beatles fan ever since I was nine," Marsh tells us. "I've always been fascinated by the lyrics and the stories they tell. At one point, we're talking 1974, when I was in teacher training college, I really wanted to write a play based on The Beatles' *White Album*. Just to take Prudence from *Dear Prudence* and Martha from *Martha My Dear* and anybody named in there and make a play based on that double album. And it's that sort of crazy thinking that fits just as perfectly with the lateral thinking needed to do a text adventure game."

Created with Quill, a program that allowed users to create text adventures without a lot of complicated coding, *Beatle Quest*'s story takes place in the year 2953, casting you as Keeper of the Archives, the person in charge of looking after ancient Earth knowledge. Coming across 'The Four Kings of EMI' in your research, you enter

"I ALSO GOT SOME THREATENING LETTERS FROM RINGO'S SOLICITORS TELLING ME I COULDN'T USE THE TERM 'BEATLES'"

into a simulation of 1960s Liverpool and begin a quest through several Beatles-inspired locations. You can encounter the rocking horse people from *Lucy in the Sky with Diamonds*, and visit the dentist surgery of *Doctor Robert*. Marsh made sure to fill the game with as many references as he could, resulting in a fun experience for those used to burying their heads in The Beatles' liner notes. As for what The Beatles thought? "I sent a copy to Paul McCartney and got a letter back that said he didn't have time to back things, or whatever," says Marsh. "It was a complimentary copy, but obviously they thought it was something else. I also got some threatening letters from Ringo's solicitors at the time telling me I couldn't use the term 'Beatles' […] and to cease and desist, which I didn't."
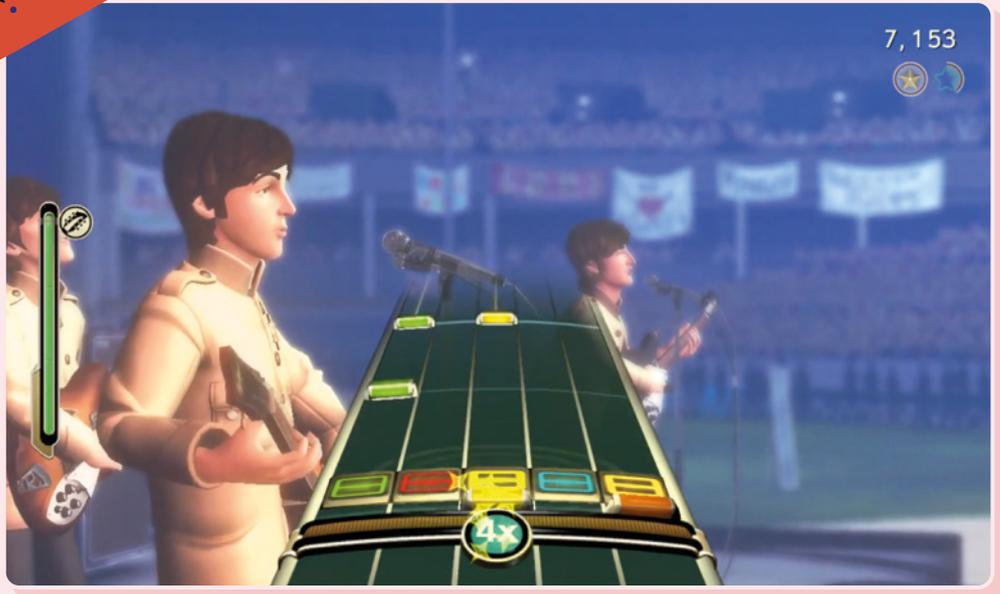
After *Beatle Quest*, Marsh planned to make two sequels to the game, called *A Day in the Life* and *Across the Universe*, but they never materialised. Instead, Number 9 Software became Number 9 books, with Marsh writing and publishing a biography of Alf Bracknell, The Beatles' driver, appropriately titled, *Baby, You Can Drive My Car!*, in 1990.

Again, there was a lull in the number of people making Beatles games, with our research only coming across one more title in the eighties – an unlicensed Italian adventure game from ➡

OUT OF THIS WORLD

There are countless references to The Beatles in 1994's *EarthBound*, due to the director Shigesato Itoi being a huge fan of the group. In Onett, for example, a resident of the town will ask you to fill in the blanks to name a popular Beatles song – XXXterday – giving you the option to choose either Yes or No; one of the members of the jazz act The Runaway Five references the song *Money (That's What I Want)* from the album *With the Beatles*; and there's a character named Maxwell Labs in the Snow Wood Boarding School, who appears to be an homage to the lead character from the *Abbey Road* track, *Maxwell's Silver Hammer*.

> The Beatles played Shea Stadium twice. The second time in 1966 marked their last commercial live performance before becoming primarily a studio band.

WILLY MEETS THE BEATLES

Simon D Lee and Paolo Arus released the romhack *Willy Meets the Beatles*, in 2012. This *Jet Set Willy* mod let players experience The Beatles' story by platforming through moments from the band's history to tracks like *Lady Madonna*. Some highlights from the hack include frolicking through an interpretation of Ringo's *Octopus's Garden*, and jumping across a level modelled after the sheet music to *I Want You (She's So Heavy)* from *Abbey Road*.

Lindasoft called *I Beatles e il Papiro della Pace* (*The Beatles and the Papyrus of Peace*) for Atari 8-bit computers. The game was the brainchild of Doriano Benaglia, Lindasoft's founder, with employee Emanuele Bergamini handling the coding, while Fulvio Besana did the design. We spoke to its programmer Emanuele Bergamini, but sadly he didn't tell us much, besides the fact that Benaglia was his boss at Lindasoft and that it was his idea to make a game based on The Beatles.

In the nineties, it was the same story. There were some occasional homages to The Beatles, such as in 1994's *EarthBound*, but nothing substantial. Instead, fans of the band would have to wait until 2009 before the next full-blown Beatles video game – *The Beatles: Rock Band*.

In 2008, Harmonix together with MTV Games, released *Rock Band* for Xbox 360 and PlayStation 3. The rhythm game took the successful formula of Harmonix's earlier hit *Guitar Hero* and extended it to other areas of performance, such as drums, bass guitar, and vocals. Players would listen to a piece of music and play or sing along, hitting specific notes corresponding to a colour, or matching a pitch illustrated on-screen. The game was another hit for Harmonix, generating $600 million in revenue by 2008.

The studio got to work on various *Rock Band* sequels and spin-offs in quick succession, with one of these being a licensed version of the game featuring The Beatles' music. This let fans play through the band's career, from the Cavern Club to their rooftop gig atop Abbey Road Studios in London, and was a collaboration between The Beatles' record label Apple Corps and Harmonix.

Chris Foster and Sylvain Dubrofsky were two of the lead designers on the project. For both, it was an education in The Beatles' back catalogue. Foster, in particular, had only been vaguely aware of The Beatles' music growing up, but had never owned any records or followed them too closely. Suddenly confronted with working with The Beatles on this new *Rock Band* title, he threw himself into researching the band and its history.

"Not surprisingly, [after that,] I loved the songs and their story, and was excited to get to help bring that forward to people in a new medium," Foster says. "Probably the biggest surprise to me – and this is no deep insight, but a strong reaction – was how quickly they evolved. Thirteen albums in

seven years, catapulting out of their many years of live performance with an ever-maturing catalogue of material. To realise the speed at which that occurred, paired with reading about their lives at that time, I deeply respected that they not only held themselves together while in the eye of that hurricane, but that they grew and changed so much in that time, as individuals and as a band."

You might think that due to the relatively short time between the original *Rock Band* and *The Beatles: Rock Band* that this new game was just a simple re-release with a Beatles paint job. But you'd be wrong. It required a total rethink of the progression system, exchanging the idea of a struggling band trying to earn money to a more player-focused approach that let you unlock historical essays and Beatles memorabilia. There was also the frustrating issue of harmonies, which feature heavily in The Beatles' music, whereby multiple singers perform in tandem – something that *Rock Band* hadn't tackled extensively in the past. "One of the biggest challenges was adding harmonies to the vocal system," explains Dubrofsky. "How do you choose what to sing? How is it scored? [...] We wanted people to be able to practise these too. So how do you split out the vocals for practice? How do you loop? How do you get help with what tones you need to hit?"

The team turned over these considerations, but even after figuring out all of the above, they still weren't sure how players would react or who would even use it. "Vocal harmonies are traditionally challenging to sing, and a little fiddly," says Foster. "We asked ourselves, 'What sorts of gamers would even consider it a fun experience?' But the playtesting showed us that, surprisingly, [...] with so many voices in the mix, people who were less comfortable taking the stage could sing a little more quietly and feel covered by sounds of the other singers. It created new opportunities for aspiring – if shy – vocalists. And when we had three strangers come in to test the entire playtest, who then closed out the set singing *The End* while holding hands, we knew we'd pulled off something special."

When people think of Beatles games today, *The Beatles: Rock Band* is perhaps the one that most comes to mind. And rightly so: it not only exceeded sales expectations, shifting a quarter of its inventory in the first week, but it also

> "WITH SO MANY VOICES IN THE MIX, PEOPLE WHO WERE LESS COMFORTABLE COULD SING QUIETLY AND FEEL COVERED"

YELLOW SUBMARINE

The Beatles Adventures in Pepperland is a 2021 romhack for *Super Mario Bros. 2*. It was created by the developer NesDraug and musician Shauing, and lets players control one of the four Beatles members on their quest to save Pepperland from the Blue Meanies. NesDraug explains the hack's origins: "I started listening to The Beatles back in 2007 when, as an experiment, I only listened to The Beatles for [roughly] six months. After that half year, it changed my way of thinking about music. I went from a metalhead to a proper musician. And around 2009, when I started to revisit my childhood favourite NES games on emulators, I started to think about putting The Beatles into *SMB2*. It just felt like a good idea. But I didn't acquire the time and know-how until ten years later when I picked up romhacking as a hobby."

showed the potential in a crossover between The Beatles and video games. Today, it remains the most successful game based on The Beatles, but things have unfortunately gone quiet again, with only a couple of unofficial romhacks and Easter eggs to speak of in the time since, like *Willy Meets The Beatles* and *Adventures in Pepperland*. It's hard not to think of this as somewhat of a wasted opportunity. After all, there's a lot of untapped potential in the idea of games based on The Beatles' mythology, from a *Her Story*-esque detective yarn about combing through albums to uncover hidden messages, to an anthology of fun minigames based on *Help!*, or even a psychedelic strategy game set inside of the *Yellow Submarine*. Just imagine the possibilities. ⓦ

The Beatles: Rock Band's opening animation was produced in part by Pete Candeland of Passion Pictures, animator Robert Valley, and background artist Alberto Mielgo.

Diving back into Human Revolution's sea of orange

KIM JUSTICE

Kim Justice is a
YouTuber, streamer, and
writer who specialises in
the world of retrogaming.
If she isn't making
lengthy documentary
videos about old games
and companies, she's
probably chatting and
mouthing off about
them live to a dedicated
handful of people.

Oftentimes when you're reading or watching good critique, you'll find something that resonates with you on a special level – it doesn't necessarily have to be an exact shared experience, but it's a comment or feeling that seamlessly pulls you back into a world that you may have forgotten about. Fellow YouTuber Hbomberguy's most recent video, a three-plus-hour look at *Deus Ex: Human Revolution* (**wfmag.cc/hbomberguy-deus-ex**), is filled with such moments that take me back to all of those hacking minigames and exaggerated tints that really defined the Xbox 360, when a game like *Human Revolution* was seen as something of an alternative to the more generic first-person and cover shooters that littered the shop shelves.

A little over ten years on, *Human Revolution* hasn't really stuck around in people's memory – it's a game that dips its toes back into the immersive sim genre that the original *Deus Ex* defined, but it doesn't dive all the way in. People probably remember the poor-quality boss fights, or Adam Jensen's line about how he didn't ask for his augmentations. The Hbomberguy video goes a lot deeper, highlighting the things that still make the game worth a look while also exposing problems that go a lot deeper than the bosses, and how Eidos-Montréal struggled to try and improve on the original *Deus Ex*. In a broader sense, it highlights the troubles with triple-A and how it makes producing a game like the original nearly impossible these days – if major problems with the game's design arise during production, the amount of people and money involved makes it so much harder to fix them in a meaningful way. There may not be a good answer to this issue, considering just how big this business is.

The one part of the video that really took me back, though, was Hbomberguy's idea that most people probably played the game for 10 to 15 hours and had a decent amount of fun with it, but at a certain point they just... stopped. Something else came around, and the game was left behind. That definitely spoke to me, as it's exactly the experience I had with *Human Revolution* – I played it a fair bit and enjoyed it, but left it somewhere around the end of Hengsha and never went back. No wonder then that the sequel, *Mankind Divided*, never really had a chance, and that we're probably not getting another *Deus Ex* game anytime soon. In those days, *Human Revolution* was hardly alone – it didn't seem like too many people actually ended up finishing games back then. Were they too bloated? Too similar to each other? Or did they just not offer enough to hold interest? Another sign of good critique is offering up these questions to think about, and wondering if they still hold true today. If you can make 213 minutes free in your planner, then you might want to have a look at the video yourself and travel back to that sea of orange. Ⓦ

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GAMING HISTORY
with Mr Biffo

Early game music was catchier!

MR BIFFO

Mr Biffo, better known as Paul Rose, was the creator of the legendary Digitiser. Check him out on **wfmag.cc/digitiser**

Why were early game themes such earworms?

I'm not sure when I first noticed the music in a game. With hindsight, I can now appreciate that *Space Invaders*' iconic, four-note, dum-dum-dum-dum beat was music of sorts, but my formative brain interpreted it more as a sound effect. It was, to young Master Biffo, the steady thrum of the Invaders' engines as they descended to the surface. By the same token, John Williams' classic NER-NER... NER-NER... *Jaws* theme is just a noise that all great white sharks make.

The first in-game music I can actually remember clearly – to the degree that I still hum it today in its original chiptune tempo – was from Midway's influential 1975 arcade shooter *Gun Fight*. Specifically, the hyperactive blast of Chopin's *Piano Sonata No. 2* that plays when a character dies (to be replaced immediately by a gravestone, just like in real life). No, I'm not so cultured that I knew automatically that it was Chopin's *Piano Sonata No. 2*. Knowing it better as the *Funeral March*, I had to look up its actual title.

There's some argument over whether *Gun Fight* featured the first use of music in a game, but rather than slip my head into that bear/orchestra

pit, I'll stick with merely saying that it's the first actual music I recall hearing.

What is undisputed is that *Gun Fight* was the first game to use a microprocessor, and the first game to feature human versus human combat, and the first with an on-screen depiction of character death. Consequently, I'd argue that there wasn't another tune more synonymous with dying until Sonic The Hedgehog started drowning.

And I loved it. Now that I think about it, *Gun Fight* (not to mention its much fancier sequel, *Boot Hill*) may have been the first video game I ever played. It's interesting that its music has endured in my brain whereas the soundtrack to... I dunno... *Horizon Zero Dawn* – good as I remember it being – didn't.

TOO MANY NOTES

It's as if the more cinematic game music became, the less of a grip it held on my memory. Consider now the music in *Pac-Man*, *Donkey Kong*, *Skool Daze*, *Super Mario Bros., Manic Miner*... they worked because of their limitations. Has the *Mario* series improved on Koji Kondo's original composition by employing real musicians to play all the instruments? I'd wager that if a recipe is already perfect, adding extra ingredients is unlikely to improve upon it.

"Try recalling a single theme from the last ten years of blockbuster games"

The nineties were a decent time for game music – see Bobby Prince's grinding *DOOM* and *Duke Nukem 3D* soundtracks – but as we drifted further into the CD-ROM era, there seemed to be fewer and fewer earworms. This was the age when every game developer seemed to wish they were making movies.

Admittedly, though a long way from *Gun Fight*, I continue to have a soft spot for the beautifully sporadic score of the original. But, again, I never walked down the street whistling it.

CHANTS IN A MILLION

The last time I remember really engaging with game music was the borderline Gregorian opening to the original *Halo* theme (and that was 2001!). It wasn't exactly the sort of thing you could hum along to though, and – again, pretty as it is – after the opening chants it drifts into generic blockbuster movie score territory.

Try it yourself: try recalling a single theme from the last ten years of blockbuster games. Now try doing the same for any game made before 1990. Heck, even pre-1995; *F-Zero* on the SNES has one of the most singalongable soundtracks ever made. Less so *F-Zero X*.

Why do those old game tunes seem to stick more? Music psychologist Dr Vicky Williamson told the BBC in 2012 that repetition is one of the key reasons music gets earwormed into our brains. Obviously, the older the game, the less memory it had for music... which is why you'd often just get a burst of *The Birdie Song*, such as at the start of *Chuckie Egg*, or *In The Hall of the Mountain King* repeated on an endless loop in *Manic Miner*. Cue: earworm.

Surprisingly, another trigger for earwormery (as I'm now calling it) is stress. A woman in Dr Williamson's survey reported getting a Bananarama song, of all things, stuck in her head while revising for an exam. Consequently, the same song would replay whenever she went through a stressful period in her life. According to research, there's even more likelihood that a tune will get stuck in your ear if you're performing repetitive activities (such as revising, or gobbling power pills from the floor of a maze) while undergoing the stress.

Repetitive activities and tunes? Stress? Sounds like video games – and early video games in particular – were the perfect recipe for an earworm pie. Ⓦ

KICK! PUNCH! IT'S ALL IN THE MIND!

1996's rhythm game *PaRappa The Rapper* boasted some of the most epic earworms in gaming history, but after development was completed... not everyone even knew if it qualified as a game. It seems bizarre now, but when Sony Computer Entertainment took delivery of Masaya Matsuura's finished product, it was so different to anything that had gone before that they didn't know how to market it.

Matsuura, who until then had been a musician in the J-pop band Psy · S, conceived the is-it-a-game? as a way to get out of appearing in his own music videos. However, even he was unsure how it would be received, telling PlayStation.Blog in 2017 that his uncertainty continued "for another six months after release", adding "The thing I was most surprised about was that players actually considered *PaRappa* as an actual game".

Not just a game... but probably the first game where music wasn't just incidental, but the central gameplay mechanic. *PaRappa* begat *Dance Dance Revolution*, which begat *GuitarFreaks*, which gave us *Donkey Konga*, *Samba de Amigo*, *Guitar Hero*, *Rock Band*, *Cadence of Hyrule*…

Indies in
the mix

Super Rare Games' Ryan Brown tells us how a long-gestating idea turned into a new way of packaging indie games: the Mixtape

WRITTEN BY
RYAN LAMBIE

^ As well as full games, you'll find a handful of demos on each mixtape. *Volume 1* had Wireframe favourite *Grapple Dog*, also published by Super Rare.

^ *Super Rare Mixtape Vol. 3* was released in May 2022.

Aeons ago, when the Earth was young and dinosaurs still roamed its surface, magazines like Your Sinclair and Commodore User regularly put audio cassettes on their covers. These often contained a mix of full games and demos of upcoming releases, giving readers a broad cross-section of the new, the old, the eagerly anticipated, and the unfamiliar. Of course, not all of the games on those tapes were great – and, as the magazines became more reliant on the cassettes for sales, the publications themselves got thinner – but at their best, they provided an affordable means of exploring an often bewilderingly broad video game landscape for a relatively small outlay.

It could be argued that, with dozens of indie games appearing on such platforms as Steam and itch.io each day, the need for curation is greater today than it ever was. British publisher Super Rare Games, and its head of PR Ryan Brown, have come up with their own way of filtering through all those games, though.

> **"A curated snapshot of platformers, action adventures, and more"**

Since 2021, the firm has been publishing the *Super Rare Mixtape* – a series of compilations that gather together around 30 or so indie games and demos, providing a curated snapshot of platformers, dungeon-crawling action-adventures, and more besides. Those games are housed in USB sticks modelled after an audio cassette, adding to the cosy, retro feel.

For Brown, having the compilation released as a physical piece of media isn't just a marketing gimmick, though: in an era where so many of us have entire lists of games we've purchased but not played, the *Mixtapes* are a means of adding value back to what might ➤

INDIE GAMES: RECLASSIFIED?

The independent games industry has evolved hugely over the past 15 years, and the scene has become so broad, both from a design and budget standpoint, that Brown now wonders what the term 'indie' even means. He points to something like the acclaimed *Hades* as an example. "It's a wonderful game worthy of success and acclaim, but people are using it as a comparison point for every other indie game. That's unreasonable, because that's a game where the developer had already done a risk assessment, already had millions in the bank from investors, 20 people working there… when you're pitting every other indie game against that, it becomes really tricky. The term's far too broad. We have terms like triple-A, and we understand what that means. Indie can be anything from a free game someone's made in their bedroom to a game that's made for £10 million by 30 people. Certainly there should definitely be some new terminology for it."

‹ The Super Rare Games team. That's Ryan Brown there, second from the left.

Mountain Defense!
4/26

Mountains protect a
for 1 hit and restor
the start of a turn
advantage of them w
you can!

RESTART   END

Franchise Wars, from Volume 2, is an engrossing mix of strategy and puzzler.

BACK TO SCHOOL

When it comes to acquiring games for his *Mixtapes*, some are easier to get hold of than others, Brown tells us. "Student games tend to be super-polished, but the licensing for those games can get a bit tricky sometimes," he says. "It's actually quite difficult to get student games onto the mixtapes because the universities or colleges may have some level of ownership over those games – which is a whole separate point; I don't think they should have ownership over them – but then some teams worked on a game in a class and aren't together anymore, so getting them all to say yes can be complicated. But there are some on these mixtapes." You'll find a couple, including the wonderful *Postbird in Provence*, in our list of *Super Rare Mixtape* highlights over the page.

otherwise be files languishing on a hard drive. "That sense of ownership is such a big thing," he says. "I'm a physical games collector, and there's a huge difference to me in how I mentally view a digital game. If I have a physical game in my hands, I feel like it's mine."

The first *Mixtape* launched in August 2021 in a limited run of 2000 copies, but the idea of an indie games compilation was brewing in Brown's head way back in the mid-2000s – some time before developers like Team Meat and Mojang Studios helped give birth to the thriving independent games scene we see today. "It's literally an idea I had about 10 or 15 years ago," Brown tells us. "I started off in the indie scene on sites like TIGSource, 64Digits, The Daily Click – all those early nineties sites that were around before games like *Super Meat Boy* and *Minecraft* took indie games to a commercial level. I was very much there on a community level. So I had the idea, virtually in the exact same form it's in now, about ten years ago. I had about 60,000 indie games on my hard drive at home. So I'd literally go through itch.io's releases every day, and if I saw anything I thought was interesting, I'd check them out."

The idea finally became reality when Brown joined Super Rare Games as its head of PR; there, the publisher's indie focus made such a compilation a logical fit. Says Brown, "I brought the idea up at work, and we don't have any investors here or anything, so everyone was like, 'yep, amazing. That's what it's all about – supporting indies. Cross-promotions.' So yeah, three, four volumes in, we're hoping it's something that will stick around long term."

Super Rare's *Mixtape* releases are spaced roughly four months apart; at the time of writing, *Volume 3* is the most recent edition, featuring such games as trippy Metroidvania *birdsong*, and one-of-a-kind 3D puzzler *It's Paper Guy!*. The titles range from brief, compact experiences to weightier RPGs, and from quick projects created for Game Jams to games that are as detailed and polished as any other commercial indie release. "There's quite a lot of different thought processes that go into [curation]," explains Brown. "First of all, because it's a mixtape, it's got to be nice and varied, so you don't want too many games in the same genre, or too many with the same art style. And then you don't want too many games of the same length – there are some five-minute experiences on there, but some are longer. I don't want too many games from any one developer on the same volume, because the idea is to show off a range of talent. I want people from different backgrounds... I have a spreadsheet now, which has maybe a thousand games I'd like to pitch."

The compilations are a self-described passion project for Brown: much of the tracking down of potential games and approaching developers is done in his spare time; his partner Tom programs the front-end launcher; all told, it takes three or four months to put a volume together. As such, the *Mixtapes* don't necessarily make huge profits, but Brown ensures that every developer who has a game featured on

^ *Super Rare Mixtapes* come tidily packaged with a box and manual – the latter containing copious liner notes about each game.

> *Volume 3* contains several games by developer Milkbar Lads. *Ugby Mumba 3* showcases the team's distinctive pixel art.

BEGINNER BEACH

000020 pts

Some *Mixtape* games emerged from Game Jams, such as *Volume 3*'s *Pocketon Peak*. Developer Ben Walter made it in 60 hours for Ludum Dare 45.
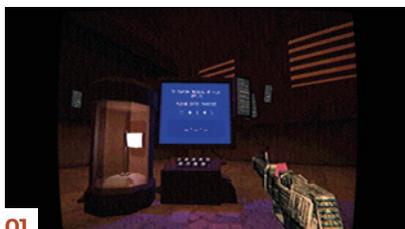
"I like to include the really weird, arty indie games that a lot our audience wouldn't have bothered trying to experience otherwise," says Brown. *Pearl Grabber*, on *Volume 1*, is one of them.

one of the tapes gets paid. "The truth is, and we always like to be transparent with developers, is that there isn't that much money in it," Brown says. "I say that in my pitch – as a company we don't take much money from it. We pay the developers, but it's not a life-changing amount by any means. The point, really, is that they're pre-existing games, we don't take any exclusivity, so the developer gets paid a bit and doesn't really have to do any work. And we send them a copy, so their game's going to be physically preserved forever."

The topic of game preservation is an important one for Brown. Smaller indie games are particularly vulnerable to the ravages of time and changing technology – something Brown noted around seven years ago, when an indie developer on Twitter said that he'd somehow lost a game he'd made some time earlier; fortunately, Brown had a copy on his hard drive. "So I emailed and said, 'I have it – I could just send it to you,'" Brown recalls. "It was that realisation that I'm sending a developer their own game, and what a weird scenario to be in, that the scene's not properly preserved. I think it's overlooked by a lot of people, both in the industry and outside. Because they're free games, people don't think much about it, but the most creative games in the scene are on itch.io. They're the future of the industry."

Smaller indie developers also face an uphill battle when it comes to getting their games into the hands of players. For every zero-budget game that goes viral thanks to the attention of a Twitch streamer, there are dozens of titles that simply sit on the internet, undiscovered. Brown recalls the developer behind *Volume 2* title *Z's Room*

"The most creative games on the scene are on itch.io"

posting a celebratory graphic on their itch.io page because their game got 200 downloads. "That's considered a success, even though it's a free game," says Brown. "There's that competition for visibility, both in the commercial space and in places like itch.io. [*Mixtapes*] doesn't fix that problem, but I do hope that it affords those sorts of developers some visibility they may not otherwise have obtained."

With *Volume 4* due out in August (meaning it could be available by the time you read this), Brown has big plans for future releases: *Volume 5* is planned and scheduled for release in late 2022, and there's the possibility that the numbering format might change next year, with volumes following a theme instead. "I realise that the numbering format is a bit jarring for people who didn't jump in from *Volume 1*," Brown says. "So next year, maybe we'll change the naming convention... I'm looking at themed volumes. Nothing's set in stone at the moment, but we could have a horror one, an LGBT-themed one, a boomer shooter one."

Whatever naming convention Brown goes for, he's committed to the time-consuming yet rewarding task of curating and publishing a wealth of games that players might otherwise have missed. "Long term, this will keep going – and there's never going to be a shortage of games, to be honest," Brown says. "I love this project. I would happily do it forever." →

Mixtape **highlights**

A handful of the must-play games on the

Super Rare Mixtape volumes released so far

01

No Players Online
Mixtape Vol. 1

As well as lesser-known indie games, Brown also likes to include more familiar titles, such as this nerve-jangling horror experience from 2019. "There are some developers who've already had the visibility, they've already done the YouTube circuit, but they need help to preserve their games," says Brown.

02

It's Paper Guy!
Mixtape Vol. 3

This 2.5D puzzler was an Independent Games Festival finalist in 2019, and it's easy to see why: its world of hand-drawn characters and cut-out shapes is a sight to behold, and the way you solve puzzles by snipping and slicing away at the environment is inspired. A real must-play title.

03

Dank Tomb
Mixtape Vol. 3

The resolution and colour palette immediately tell you this is a PICO-8 game, but there's an ingenuity to the environmental puzzles and a polish to the lighting effects that make this more than a retro curio. It's an absorbing title that could otherwise have flown under our radars.

04

Z's Room
Mixtape Vol. 2

A short, witty adventure game about a bunny's persistent attempts to help their friend out of a depressive funk, *Z's Room* was made in just two weeks. The game that once celebrated getting 200 downloads on itch.io (see main feature), it's the type of indie experience Brown likes to help bring to a wider audience.

05

Postbird In Provence
Mixtape Vol. 2

A wholesome deliver-'em-up with utterly charming environment and character design, it's hard to believe this was developed by students at the film and video game school, ISART Digital. "It's a really high-quality game," Brown says. "If you saw that game [released commercially], you would not bat an eyelid."

06
Stargrove Scramble
Mixtape Vol. 1

With taut controls and crisp sprite design, *Stargrove Scramble* would likely have been a hit in the NES era. "Team Bugulon put out the most amazing games in jam situations," says Brown. "That team is as skilled as heck. If we don't see commercial projects from that team in the next few years, something's gone terribly wrong."

07
Liminal Ranger
Mixtape Vol. 3

A first-person platformer that's unlike just about anything else in the genre, *Liminal Ranger* has you exploring 3D dream spaces and attempting to solve their problems through conversation. "This developer's work is really incredible," Brown says. Another of developer yatoimtop's games, *Pearl Grabber*, is on *Mixtape Vol. 1*.

08
Die in the Dungeon
Mixtape Vol. 3

This deck-building, turn-based rogue-lite was originally developed for a game jam in 2021, and Brown was keen to get it onto a *Super Rare Mixtape*. "I wouldn't be surprised if this went commercial," Brown enthuses. "It's a really, really fun, in-depth game. I think the developers are still continuing to expand it."

09
Tadpole Tales
Mixtape Vol. 2

"This is a gorgeous, hand-drawn shoot-'em-up," Brown says. "I think the developer went through all the hoops of game development and then just released it for free on Steam in the hope that using that experience would let them make a commercial game next. A lot of indie devs do that."

10
Detritus
Mixtape Vol. 1

"All it does is load images from your desktop and then displays them as portraits in a pretend art gallery," Brown says. "You wouldn't see this in a commercial space at all, and that's what I love about the scene. People making what they want to make without worrying about whether it will sell. It's pure creativity." Ⓦ

Toolbox

The art, theory, and production of video games

^ Code an homage to the gravity-flipping platformer, *Metal Storm*. See page 64.

^ Antony chats to Polygon Treehouse about the fantasy storytelling in the acclaimed point-and-click, *Röki*.

50

58

46

The principles
of game design

When does your commitment to game development tip over into obsession? Howard has some personal insight to share...

AUTHOR
HOWARD SCOTT WARSHAW

Howard is a video game pioneer who authored several of Atari's most famous and infamous titles. His book, *Once Upon Atari: How I Made History by Killing an Industry*, is out now. **onceuponatari.com**

n a bit of news relating to an entirely other kind of classic gaming, I recently celebrated my 13th wedding anniversary. Which was very lucky for me, and I guess I'm feeling a bit nostalgic. In honour of this fact, I would like to explain how this relates directly to the topic of classic gaming of the video kind.

You see, this wasn't my first foray into the world of matrimony (far from it, truth be known), and in point of fact I had a previous marriage which took place while I worked at Atari. To point a little further, I married another Atari employee (which is not a development that classic gaming is about, but all this did take place with classic game development all about). Now, I should further say that I wasn't at work at Atari during the ceremony – though it wouldn't be far from the truth, since I did work almost all the time at Atari (out of pure desire, if not warped need). This fact led to a divorce from a prior marriage

shortly after I started at Atari, clearing the way for the marriage I had while at Atari. The during-Atari wedding happened on a weekend holiday in Las Vegas – though not spontaneously, we had planned to marry in Las Vegas.

For my current marriage, I was a tad jittery in the run-up to our big day 13 years ago. Why the jitters? Well, I hadn't been married in over two decades, so I was hoping to remember how to do it. And in additional fact, perhaps I was hoping to make a better go of it this time round since the prior attempts were successful enough to leave me legally available for this marriage. In any case, the gaming industry in general (and the classic gaming world in particular) has a reputation for being very hard on relationships, and that reputation is earnestly earned. So this month I thought a little discussion of the why and the how would be in order.

Who better to shed some light than two other veterans of the video game family court system, none other than Tod Frye and Nolan Bushnell? They say it beautifully in episode one of the *Once Upon Atari* documentary series:

Nolan: *"What happens is your life becomes seamlessly integrated with your projects."*
Tod: *"I was so intensely involved with [developing Swordquest: Fireworld on the Atari 2600] at the time, that I didn't remember my best friends' names. I didn't remember people's names. I remembered my co-workers' names – I saw them every day."*
Nolan: *"Several of the programmers ended up running into personal or family or wife problems."*

▲ **Programmer Tod Frye was one of Atari's more high-profile developers, with his work including Atari 2600 hits *Pac-Man* and the *Swordquest* series.**

❯ ***Swordquest* was an ambitious fantasy adventure series for its time, with its story broken up over multiple games – *Earthworld*, *Fireworld*, and *Waterworld* – released between 1982 and 1984.**

▲ The Atari 2600 port of *Pac-Man* wasn't a great one, but it still sold over eight million copies. Tod Frye reportedly made ten cents for every copy sold. He got pretty rich.

You know, because the passion sometimes becomes all-consuming and squeezes out the significant others."

This was so true. Not all, certainly, but many of the programmers (and most of the successful ones) had social lives that were either troubled or non-existent. And we weren't simply nerds incapable of engaging socially. We were dynamic and interesting people, but many of us were hell-bent on creating something original, cool, and fun, and we did that to the practical exclusion of virtually everything else in the world.

It wasn't about being a workaholic, it was more insidious. A driving need, bordering on obsession, to pursue the elusive answer to a lifelong riddle waiting around the corner just out of reach. That sounds a bit melodramatic. Perhaps it was just the fervent desire to bring joy to countless teens or to author a million seller or to be master of the machine, culling magic out of precious few registers and bytes of RAM. Maybe it was just to make something special and, by virtue of the act, become someone special. Whatever the motivation, the end result was the same, and no one ever phrased it better than Tod in episode one: "It was my family, it was my home, it was my job. It was my future… my past… my hopes and my fears… it was everything. Atari was *everything* to me."

That's how we felt, and it was a bond that unified us. We saw stories about "addicted" teens who never left home, unable to pry themselves from a controller… and we'd smile. Behind the scenes we were the enablers, the people who never went home. Consequently, it became just as Tod said, we were with our family at work and home was where we felt "away". This was a lesson I learned about succeeding in the corporate world.

"Programmers ended up running into personal or family or wife problems"

Hollywood gossip columns exist because the entertainment industry is rife with brief high-intensity relationships. Why? That's the structure of creative projects. Most artistic productions (video games included) require intense focus and near-total consumption of one's time during the project. This forces a small band of interdependent people to spend all their time together in an isolated environment full of tension and arousal. This creates the illusion of bonding (which is really just stress reactions seeking relief). Generally speaking, entertainers are a tad highly strung and insecure to begin with. When you lay on the tension, they go running for cover and start pairing up. But soon the storm passes, bonds are shed, and people scurry away in search of a next project with the promise of new bonds, better bonds. That's entertainment!
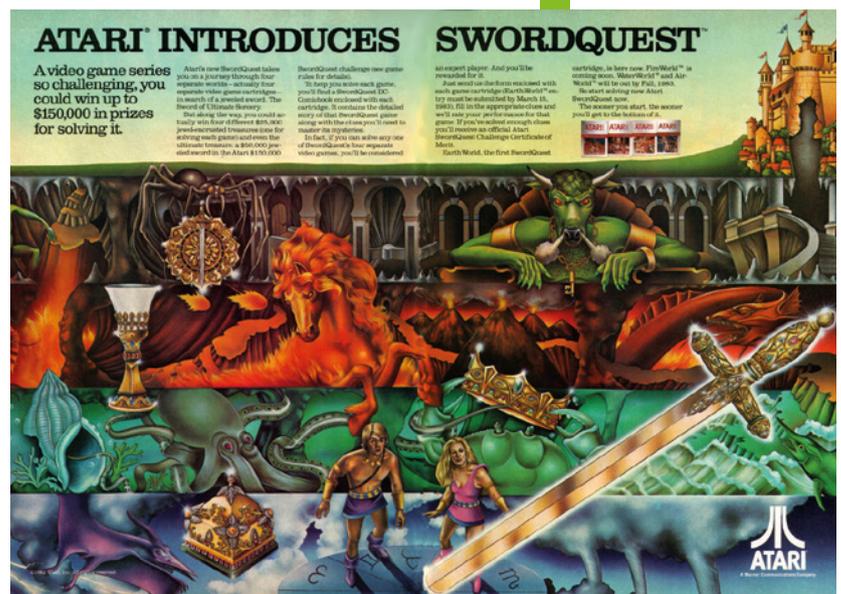
Fortunately, I came to appreciate how this outlook undermined me in many ways. Unfortunately, unlearning is a slow process. But even more fortunately, I finally did graduate from the school of work-in-perspective. My graduation present is a 13th anniversary and the actuality of a beautiful life I am a part of rather than apart from. And I know I'm better equipped to appreciate this new life now because I clearly remember a time when Atari was *everything* to me, too. ⓦ
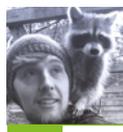
MOO MOO LAND

Tod Frye had a nickname. Truth be told, Tod made up his own nicknames and informed us about them regularly. One I particularly liked was "MOO". This is an acronym for Master Of the Obvious. It was never clear to me why he didn't go with MO or MOTO, but Tod was not to be questioned about his acronymic alacrity. One of the things that led Tod to declare himself the MOO was his observation about our lifestyle at Atari. As he put it: "It wasn't really much of a foundation for a healthy human life." MOO.

▼ *Swordquest* also had big prizes behind it, including a gold, jewel-encrusted goblet worth thousands of dollars.

Telling Röki's
modern fairy tale

Röki writer/narrative designer Danny Salfield Wadeson reveals a 'big picture' approach we ought to emulate in our own storytelling

AUTHOR
ANTONY DE FAULT

Antony is Wireframe's writing and narrative design columnist. He's also a freelance video game storyteller, and you can find his work on **default.games** or **@antony_de_fault** on Twitter.

Röki is an excellent modern adventure game with a surprising amount of emotional weight behind it. One thing that stood out to me was its level of cohesion, its 'resonance', where both gameplay and narrative contributed to an overall meaning larger than the sum of its parts. So I decided to have a sit down with my friend Danny Salfield Wadeson, who did writing and narrative design on the game and has now moved onto a post as senior narrative designer at Sony's Firesprite studio, to discuss how the team at Polygon Treehouse pulled it off and see what broader learning we might gain from their approach.

Each of the main jotun in *Röki* sets you upon a dream trial, in which the protagonist's personal tale is meted out.

OK, straight into the deep end: what was the process for designing the story?
It was informal on such a small team. We started off with 'what's the big picture?', [looking for] a structure that would allow us to take the player in a psycho-spatial manner where we wanted to take them. We already knew we wanted four biomes, not a ton of characters, and to get all the folklore in there. So early on we arrived at this concept of the 'trials', which are semi-Freudian delvings into the repressed memories that [the protagonist] Töve has, and link slightly magically to the themes of the respective jotun. It was in designing those trials that the themes came out, because we really wanted to make sure that the game design meshed fully with the narrative, as, y'know, a good game should. That's not always the case going in, but we did have that goal early on, which was great. A lot of the work then was thinking, 'OK, roughly what shape will the trial be? What are the key cornerstones of this family story? What would it make sense that Töve has actually repressed?'. The things you're uncovering in those sections, where the themes come out the most, had to be capable of telling that whole story between them as a connected through line.

It sounds like the themes and the big picture spread outward from those trial sections, but what was the actual *process* like? As in, what documents changed hands, did you use a whiteboard, etc.?
It was pretty low-tech. There was a big overlap while I was living in Cambridge, where they were

based, so we had brainstorming meetings, catch-ups, and narrative sessions in the nice little pubs and cafés of Cambridge. We'd try to hash out at a high level what a scene needed to be. We'd start with gameplay aspiration, talk through the general vibe, and often focus a lot on the puzzles. Then I'd go off and Alex and Tom (the co-directors) would write me a mini brief stating 'this is what we need to have happen in the scene, and this is what we need to know backstory-wise'. It started off with the trials, then sometimes we zoomed out and abstracted it, like 'what's the relationship and contrast between these four jotuns?', or 'what exactly is the family dynamic?'. Then I would go away and write up a high-level treatment focused on the emotions, the psychology, and as much as possible, I was trying to say, 'here's how we can actually convey these emotions and concepts; here's how a set of puzzles or items can help tell this story'. I treated them as narrative design proposals/story treatment docs, and they were per gameplay area or per theme.

So you kind of built a house out of these individual treatments, and presumably, you discovered things along the way?

Yeah, there was a fair bit of revision, and in hindsight, we could have definitely done it better, but by and large, the approach was pretty good. We tackled things from the right direction, as in we started high level and we drilled down, rather than the mistake a lot of people make of starting with the specifics. What those people end up with

is a bunch of 'darlings', essentially, which they think they love, then they try and fit everything else in between them, which is just a really clumsy way to work. But we got that part right, I think, by focusing on the relationships, the themes, getting that stuff straight, and then using that as a lens to look at the gameplay and puzzle design through.

We've all walked onto a project in that situation in the past, where there's details and darlings everywhere...

It's incredibly prevalent. It's fascinating how people always trend towards that kind of system; they think having a specific is like an anchor point, but actually, it's the complete opposite. You need a North Star; you need your pillars, your guiding principles, because once you have them, that is the blueprint. Any other decision in [making] the game, especially any narrative decision, you now can easily find out if that's a good decision by asking, 'does it hit each of these guiding principles?' If yes, then it's fine. If no, you're going to end up with continuity problems or with woolly themes. It's a constant battle of re-education with people, I find. Ⓦ

WHAT ELSE WENT WELL?

"We had a long-running debate about the level of obliqueness the backstory should have. I was always on the side of 'More oblique!', while Alex and Tom were always arguing 'Less oblique!'. In hindsight they had the right idea. Maybe they pushed it a little bit too far, but overall, a player is going to be much less frustrated if something is slightly too obvious than if they can't figure it out at all, and then you risk them missing the point completely. So ultimately, they made the right call."

Designing puzzles and problems

Puzzles and problems are a gaming staple, but how do they work, and how can you design them to challenge, but not frustrate, your players?

AUTHOR
STUART MAINE

Stuart Maine has been a designer for 24 years, across PC, console, and mobile. He helped set up Well Played Games and is working on an unannounced title.

P uzzles are so ubiquitous in both video games and the real world that we lump a whole bunch of activities under that umbrella term. There are jigsaw puzzles, sudoku, and crossword puzzles, abstract games like *Threes* and *Lumines*, and point-and-click adventures whose gameplay revolves around solving puzzles, such as the *Broken Sword* series.

What links them all is that we can define puzzles as 'challenges you solve by thinking about them'. Pure puzzles entirely come down to brain power, but hand/eye coordination and the influence of chance can also play a part.

Coordination comes in because each of your turns in chess is a situation you can 'solve' by thinking, whereas *Dr. Mario* requires the ability to think through the options but then also be able to execute them quickly and accurately. Chance, on the other hand, represents elements outside of your control, no matter how smart you are, such as the exact *Tetris* piece you need appearing or not.

But while we call *Tetris* a puzzle game, it's technically a 'problem' game. So what's the difference?

PUZZLES VERSUS PROBLEMS

Puzzles present a situation that someone has designed to have one or more specific solutions for you to figure out, and while you might come up with a clever way to abuse the game's rules to circumvent a puzzle, that's technically cheating.

A problem, on the other hand, is something designed to have any number of solutions – as long as it works, whatever you figure out to get through it is a valid approach. So, working out how to get past Baby Jimmy Hoffa in *Sam & Max* is a puzzle with only one solution, whereas bringing down an *Angry Birds* tower in the fewest shots is a problem with any number of solutions.

Of course, everyone shortcuts this by referring to both puzzles and problems as puzzles, but it's important to understand the difference due

⌄ *Breath of the Wild*'s use of physics allows players to 'cheat' unexpected solutions to puzzles. Though this approach works, it's not what the designers intended.

Infinifactory asks you to reach goals, but it's up to you how you approach each problem – you're not expected to figure out a preset solution.

to the intrinsic rewards that each offers (with intrinsic rewards being thoughts and feelings generated by the player when they complete a challenge, as opposed to extrinsic rewards like coins or progress that the game may hand out).

Puzzles involve the player taking on the designer in a head-to-head challenge and, as such, are considered 'hard fun'. Are you smart enough to figure out the challenge in front of you? Can you beat the designer? Problems, meanwhile, are considered 'easy fun' because they revolve around the player versus themselves: 'Sure, I can solve this problem in nine steps, but can I do it in five?' Hard and easy fun attract different audiences ('figure out the solution' versus 'do your best'), so consider who's playing your game and whether they're looking to pit their wits against you or have a chilled time trying out different approaches.

TYPES OF PUZZLE

This isn't a complete list, but here are some common puzzle types you might want to play with:

Riddles: Riddles in the 'Bilbo versus Gollum' sense are uncommon because they're entirely language dependent – meaning they may not make sense to players outside your country – and because their answers can often be ambiguous. That said, *Sea of Thieves* uses them for its treasure map puzzles.

Spatial reasoning: Puzzles involving the game's environment. For example, *Superliminal* revolves around positioning yourself and the in-game camera to align things just so, while *The Talos Principle* asks you to pick up and manipulate objects to cause lasers to hit specific targets.

Pattern recognition: Games where the challenge comes down to being able to spot and recognise elements. This may sound simple, but it includes the extremely popular match-3 and hidden object genres, along with games like solitaire. ➜

Despite their drawbacks, *Sea of Thieves* features riddles for players to solve in order to find buried treasure, neatly marrying its pirate theme and gameplay.

▲ *Scribblenauts* forces players to use lateral thinking to solve problems within the game's rules, while *Baba Is You* lets you change them to your advantage.

PUZZLE PROBLEMS #1

While there are exceptions to every one of these, let's cover a few things to generally avoid when creating puzzles. First is including puzzles that blatantly only exist to extend your game's play time and don't tie in to the theme at all. For instance, while *System Shock*'s hacking puzzles work nicely with its theme (you are there because you're a hacker, after all), *BioShock*'s '*Pipe Mania*' puzzles to open doors and safes don't make much sense. Look for the challenges suggested by your theme – what makes it difficult or dangerous – and try to build puzzles around those.

Lateral thinking: These ask the player to come up with a solution by thinking 'outside the box'. Perhaps the best example is *Baba Is You*, which lets you solve problems in any number of creative ways if you think laterally.

Logic: Games where you're presented with all the information and have to figure out how it fits together. *Picross* is a great video game example, while Sherlock Holmes: Consulting Detective is a board game which revolves around this.

Exploration: These require the player to physically move around inside the game's environment in order to spot clues and work out how everything fits together spatially. Examples include the *Tomb Raider* and *Portal* games.

Item use: Games that involve picking up items and working out what to use them on. Point-and-click adventures and escape rooms often come down to finding and using items to progress.

AFFORDANCES

Puzzles and problems are defined by their 'affordances' – a concept that games have inherited from the real world. An affordance is simply something that you are able to do in the current situation, with a common example being doors with pull handles (so you know you need to pull, not push it open). In the case of puzzles, affordances are the possible actions that players can make when trying to solve them. For example, if they can pick up objects, then being able to use objects to solve puzzles is an affordance they have, whereas if they can't pick

> ## "Puzzles and problems are defined by their 'affordances'"

anything up, then that's not even an option when it comes to solving a puzzle and the solution must be elsewhere.

As well as helping players understand what is or isn't an option for solving puzzles, you can use your affordances to help generate those puzzles in the first place. Start with one of the affordances in your game and think of all the puzzles you can possibly make around it. Note that some of these 'puzzles' will be rubbish – you're only listing potential options, not guaranteeing they'll be worthwhile. Then add another affordance and see which new puzzles spill out from that, and so on until you run out of things that are possible in your game.

As an example, let's say we have a game where objects are affected by gravity. Therefore 'can solve puzzles using objects' is an affordance the game has, as is 'puzzles involving gravity'. Combining these means we can have puzzles where the player wants objects to fall, and puzzles where they have to make sure they don't fall. Then we could add the affordance of players being able to control or even reverse gravity, potentially giving a lot more puzzles. Or we might add objects that aren't affected by gr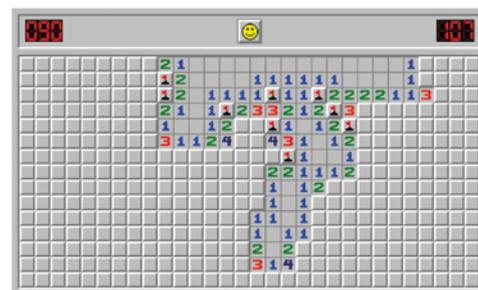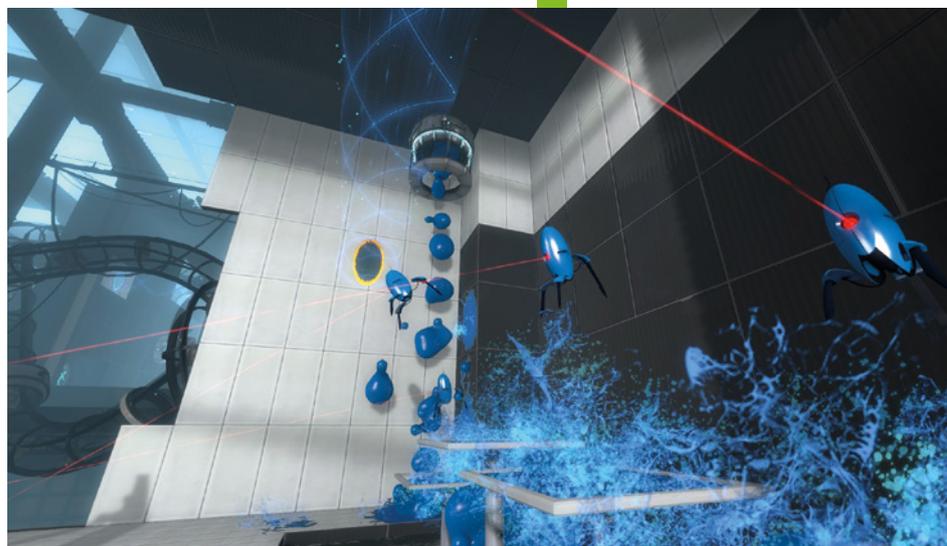avity, providing other puzzles. Of course we could have gone a different way, adding affordances to move and rotate objects as they're falling, ending up with *Tetris*.

It's important that players know what their affordances are so that they understand what is or isn't an option for solving a puzzle. If you've provided all the information, then it's up to players to solve the challenge, whereas simply not knowing that something was even possible

▲ *Minesweeper* only has two affordances – reveal or flag squares – meaning it doesn't take long to figure out your options and get on with problem-solving.

is a lame way to generate difficulty. Also, you may occasionally want to remind players about affordances they haven't used in a while.

WHAT'S BEHIND YOUR AFFORDANCES?

While affordances specify the options for solving a puzzle, those affordances only exist within the context of your game. By that, I mean what's the driving force behind your game? What's providing the elements that your affordances emerge from? Two common options are that the game revolves around systems and rules, or revolves around its environment. Looking at each of these provides another way of generating puzzles.

System and rule-driven games generate puzzles from the elements in your game interacting with each other, then asking players to figure out and make use of those interactions. This is how the *Zelda* games operate, so let's look at an example: *Zelda* games teach you that bombs destroy cracks in the world. Also, that bombs can be picked up, carried, and thrown, and that they explode a while after their fuse has been lit. Each of those rules allows you to create puzzles where the player does or doesn't want to blow things up. But the game doesn't teach you that throwing a lit bomb so it happens to explode in mid-air allows you to break cracks that are too high to simply place a bomb beside them. You

have to take that leap from knowing rule A + rule B to coming up with rule C on your own.

Environment-generated puzzles, on the other hand, revolve around looking for places in the game world where you can use your 'tools'. This is the domain of point-and-click adventures, so your tools tend to be the verbs available to you (push, open, take, etc.) and the items in your inventory. The challenge comes from recognising that an action is even possible in the current location. *Day of the Tentacle*, for example, asks you to figure out that dropping items into the time machine in one time period allows characters in the others ➡

▲ Sometimes it's best to rotate through your game's mechanics, rather than keep piling them on and expecting the player to remember how they all interact.

NARRATIVE PUZZLES

Though perhaps stretching the term, it's interesting to consider that puzzles can be narrative-driven instead of challenge-focused. For example, if the game asks 'Should you do X or Y in the story?' or 'Do you accuse X or Y?', then players are likely to approach the question in the same way they would a traditional puzzle, by thinking through the rules and possible outcomes. Unlike challenge-driven puzzles, however, narrative puzzles like this may not have a right or wrong answer, or if they do, then players may not learn the result of their choice for a while.

◀ Jonathan Blow's *The Witness* was developed 'mechanic first', with puzzles naturally arising from combining and twisting the game's rules to see what happened.

PUZZLE PROBLEMS #2

It's usually a bad idea to deliberately create puzzles where the only (or at least quickest) way to progress is to fail and retry. It's fine if players can get themselves into an unwinnable state and have to restart a puzzle, because that's 'their fault' and hopefully they can see what they did wrong. But if your puzzles are full of impossible-to-predict pitfalls that force a restart then players are quickly going to learn that brute force trial and error is the optimum way to play, rather than bothering to try and figure out the solution.

⌄ **The challenge with environmental puzzles is knowing how far you can push your players before crossing into what seem like arbitrary leaps of logic.**

to pick them up. Working out that this is possible isn't the challenge – it's understanding which items you might want to send to each character, and why. Environment-driven puzzles reward players through surprise and delight – seeing something cool or funny happen as a result of what you just did.

System and rule puzzles obviously need you to create those game systems and rules, then look at how they combine and work out which puzzles suggest themselves. Environment puzzles are more bespoke, and revolve around considering what the player has and the world around them in new, unusual ways.

PROCEDURAL PROBLEMS

So that's three ways to create puzzles: look at what the player can possibly do, look at how your game's systems interact, and look at blockers your environment can put in the player's way. All these let you create situations that players must figure out and overcome, but it's worth noting that you don't always need a designer to generate a puzzle – they can emerge procedurally.

Each turn in a game or change in a game's state can offer the player a puzzle – well, technically a problem – they can solve. For example, for each turn in *Hearthstone*, the player has to look at the currently deployed cards, their mana, which cards are in their hand, and how much health both players have. With that information, they then try to solve the

> **"Environment-driven puzzles reward players through surprise"**

⌃ Rather than fixed puzzles, games like *Tetris* generate a new problem to solve each time a block appears and the game state changes.

problem of playing the best possible turn. The same can be true in real-time games, such as having a few seconds to decide the best way to rotate a die in *Devil Dice*, or calculating whether to clear a space or set up a future combo in *Puzzle Fighter*. Of course, because those are played in real time, you introduce the added challenge of actually being able to precisely carry out their plan, so you may want to make problems easier (or at least quicker) to solve than a game where the player can do exactly what they want.

THE "A-HA!" MOMENT

Rather than the eighties Norwegian band or an Alan Partridge quote, I'm talking about the way the best puzzles give players a "But wait…" moment of confused "this puzzle is impossible", followed by "A-ha!" as the answer hits them.

To achieve this, first you need to surprise players by making them realise that the expected solution to the problem isn't going to work this time: following steps that worked last time might make it impossible to move on to the next step. *The Talos Principle* has a good example where you need to bounce several lasers at once, but picking up the device to do this breaks the puzzle. The player has to step back and figure out a new approach which lets them do two things at once.

That "this is impossible" surprise is followed by the moment of epiphany when players figure out a new way to overcome the blocker and make progress. Note that it's important not to cheat the player; if they're paying attention and thinking

Books can tell you, and movies show you, but only games let you interact with 'impossible' concepts where the rules of reality don't apply.

the steps through, then before they even hit the blocker, players should have a chance to realise that in this case 1+1 is not going to equal 2 and that they're going to need to adjust their tactics. And, of course, even after players realise they're blocked, they still won't immediately understand exactly how to adjust their approach, but figuring that out is the fun bit. Think of it like the twist in a movie – there have to be enough clues beforehand that you can kick yourself for not spotting it earlier.

PUZZLE DIFFICULTY

Puzzles can be made easier or more difficult in several ways, often without their designers realising it. So it's worth considering how this list might affect your puzzles and whether you want each puzzle to be easy or hard to solve:

Context: This refers to how much information players have to help them solve the puzzle. Are the rules of the game's universe clear? Does the player know exactly which tools they

have available to them to solve the puzzle, along with any restrictions they need to work within? Finally, how clear is the goal, so they know what they're actually trying to do? A great example of context comes from *Portal*, which has a bunch of puzzles teaching you that you can create portals on any white surface, eventually leading to players figuring out that the moon they can see through a gap in the ceiling is white…

Thinking outside the box: Whether players have to step back and think about the rules of the game they're playing and how those rules might be manipulated or broken. These tend to come down to puzzles which you fail if you try what ➡

YouTube channel GMTK has an interesting video on how *Lara Croft GO* forces you to rethink a puzzle when the expected solution doesn't work.

The Talos Principle regularly features 'traps' where following the rules you've been taught leads to a dead end, forcing you to try a new approach.

PUZZLE PROBLEMS #3

The final puzzle pitfall to avoid is forgetting to ensure the player is the one having fun. It's easy to get wrapped up in how clever a puzzle is or how much you're enjoying creating it, but of course none of that matters to players. A classic example is 'hunt the pixel' puzzles from games like *Gabriel Knight*, which forced players to carefully scour screens for tiny interactive elements that they didn't even know they were looking for. Look out for problems like playtesters understanding what they need to do but clearly not enjoying doing it.

> Unfortunately, encountering problems while playing *Operation: Tango* meant from then on I never knew if progress was halted by a genuine puzzle or another bug.

> *Keep Talking and Nobody Explodes* wants its challenge to come from players struggling to communicate under pressure, not from awkward controls or confusing rules.

you've used before, forcing you to go through the "A-ha!" process discussed earlier. The *Taskmaster* TV show often involves this, plus there's the classic 'connect nine dots with just four lines' puzzle. A word of caution – consider what your intended audience might or might not know before forcing too much outside-the-box thinking. After all, it's no good asking an audience of kids to solve a puzzle involving a cassette tape.

Ease of use: How easy or difficult is it to manipulate the elements of the puzzle in order to solve it? Generally, you want figuring out what to do to be more important than actually getting the game to do what you want, but games like *Surgeon Simulator* revolve around making straightforward actions difficult to carry out.

Number of steps: How many 'elements' or steps the player has to go through in order to solve the puzzle. Easy puzzles simply involve doing A, but difficult ones need you to do B first to acquire the object that A requires, but to even reach B you need to solve C first, and so on. *The Witness* is built around this gradual escalation of the steps required to solve its puzzles.

Feedback: The amount and clarity of feedback you give players will tell them they're on the right track to solving the puzzle. It's important to clearly reward correct steps with positive feedback (and potentially 'reward' incorrect steps with 'bad' feedback) otherwise players may give up, even if they're on the correct path. For example, *Gone Home* opens more of its environment to tell you you're making progress. As an aside, feedback also helps players understand if they did something wrong or if they've run into a genuine problem with the game (because they're not getting any feedback at all).

Gaps between steps: This refers to how long it is between showing players what they need to do to solve a puzzle, and them actually needing to apply that. If you teach them a rule and they immediately apply it, then that's much easier than having to recall something taught earlier. For example, *Riven* uses a children's toy to teach you how numbers are read in its world, then later asks you to use that knowledge to solve a puzzle – which is tricky, because step one of the puzzle is associating what you learned earlier with the current situation.

^ *Riven* split teaching you its in-game numbers and the puzzle where you needed to use them, adding challenge by forcing you to connect both elements.

^ Games like *The Room* and *Gone Home* gradually unfold their environment as you progress, providing clear feedback that you're on the right path.
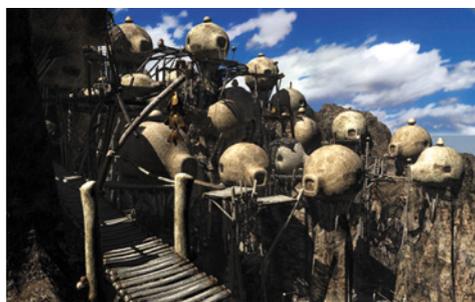
CONCLUSION

Creating good puzzles can seem like an abstract and intimidating prospect, but you can make it easier by trusting in the elements that make your game cool in the first place. If you have an evocative world to explore, then look at that from the player's point of view (as opposed to the developer who knows how everything works) and ask which elements you're going to clearly explain and which could be obfuscated a little more and made into puzzles. Maybe players need to work out how to open this barrier or cross that gap, or perhaps a character stands between them and progress, and must be convinced by words or deeds to let them through.

On the other hand, if your game is driven by a bunch of systems – some game objects are buoyant, the AI is attracted or repelled by light, there are surfaces you can or can't pass through, etc. – then look at how each of those can offer puzzles. Once players are comfortable playing with one of your systems, can you turn it on its head so they have to do the opposite of what they were expecting? Once you've exhausted each system alone, consider how they can be combined in surprising ways. This is the realm of immersive sims like *Dishonored* or *Prey*, so look at how they allow players to bypass situations using any of the tools at their disposal.

Finally, consider the affordances players have for solving the puzzles. What do they know is a potential approach to solving a puzzle because

it's possible in the game's world? What have they tried before and which approaches might be combined in new ways?

Puzzles and problems are fun because players like to learn new things and overcome challenges, so by ensuring your puzzles offer either or both of those intrinsic rewards, you can pretty much guarantee that solving them will be compelling. After that, you can use playtesting to help in two ways: first, balance your puzzles so you provide a range of difficulties that keep the experience varied, and second, ensure you're clearly presenting your puzzles to players so they understand there's a challenge to solve in the first place.

Use what your game offers, think from the player's perspective, and provide challenges to overcome and opportunities to learn.

Keep these in mind and you'll soon have a game full of puzzles and problems that will have players frowning at the screen before suddenly going, "A-ha!" ⓦ

> **"Players like to learn new things and overcome challenges"**

CASE STUDY: X-MEN

The 1993 *X-Men* Mega Drive game revolved around platform jumping and punching bad guys. It came as something of a surprise, then, when the penultimate level stumped players with a puzzle saying they needed to reboot the Danger Room by resetting the computer. After endlessly searching for an in-game reset button, players may eventually figure out that they needed to actually reset the Mega Drive itself! This is the only puzzle like this in the game, so I'll leave it up to you whether introducing a 'reset the console' affordance with absolutely no warning was clever or ridiculous.

Creating a mount system in Unreal Engine

Use classes and interfaces to create interactive cars and other mounts

AUTHOR
RYAN SHAH

An avid developer at The Multiplayer Group with a strong passion for education, Ryan Shah moonlights as KITATUS – an education content creator for all things game development.

Mounts in games are a great way to traverse in-game worlds, and they don't just have to be horses or mythical creatures. The idea of mounts can be stretched to anything that a player can interact with and ride manually – from the cars of *Grand Theft Auto* to the broomsticks of the *Harry Potter* games. In this guide, we'll look at how to create our own mount that we can ride around in (or on) and dismount (or exit).

To get started, we're going to use two of Unreal Engine's example projects – the Third Person and Advanced Vehicle examples. If you didn't know already, we don't need to create separate projects to house multiple example content packs. Let's learn a neat way to add example content to our already existing project.

With a project open, head to the Content Browser and press the Add button. When the palette opens up, select Add Feature or Content Pack…. In the menu that opens up, select Third Person and then Add to Project. Once imported, do this process again but with the Vehicle example (see **Figure 1**). It's that easy! We now have the content of both of the packs inside our project.

Before we continue, we have to do something temporary to combat a current bug with one of these packs. In the future, the vehicle pack should be fixed, but for now we have to do some manual tweaking to get the pack to work correctly.

The new vehicle template in Unreal Engine 5 uses Chaos and the Chaos plugins, which isn't on by default in the current versions of Unreal Engine 5 (5.0.2 at time of writing). To enable these plugins, head to the top ribbon of the editor's main view and go to Edit > Plugins.
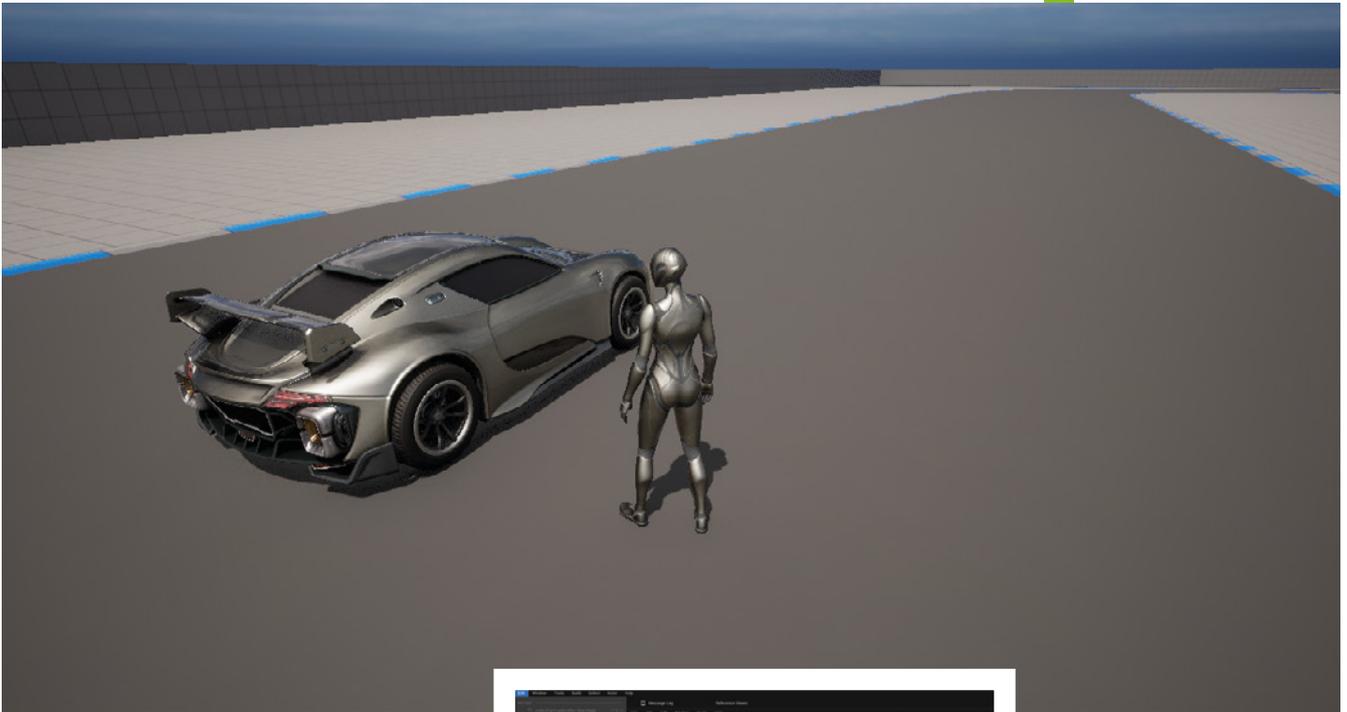
With the Plugins window open, search for Chaos and ensure all of the Chaos plugins (ChaosCaching and ChaosVehiclesPlugin, especially) are enabled. Then reset the editor (the changes won't work without a reset) and we're ready to continue (**Figure 2**).

Now we've worked around the bug, we're going to head into the Vehicle's example map (as it's the more exciting of the two packs' maps). Go back to the Content Browser and navigate to VehicleTemplate > Maps and double-click VehicleAdvExampleMap to open the map.

Before we get stuck into to the good stuff, we're going to bring in our character and vehicle. Get the BP_ThirdPersonCharacter

> **Figure 1: You can add many different items from the Add menu, including example content or new classes. You can find this menu on the top left of your Content Browser.**

located at Content > ThirdPerson > Blueprints and place it in the level. Once that's done, head to Content > VehicleTemplate > Blueprints > SportsCar and place the SportsCar_Pawn in the map – preferably within walking distance of the BP_ThirdPersonCharacter.
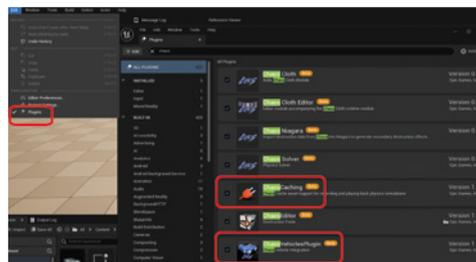
We want the player to start as the Character we've brought in. One quick way we can do that is by selecting the Character in the scene to open the Details panel for the Blueprint on the right. In that panel, scroll down to Auto Possess and change it from Disabled to Player 0. From now on, when the game starts, Player 0 (the first player) immediately possesses the character – which is exactly what we want for this example (**Figure 3**).

You can go ahead and test your project now (using the Play button at the top of your Viewport window), just to run around, have a play, and get a feel for the character you've just set up.

WHAT A STATE
Breaking down the mounting system we need to create, we need four states: Unmounted, Mounting, Mounted, and Unmounting. We can easily translate these states to be:

```
Unmounted – Player running around the world
Mounting – Player getting in/on a mount
Mounted – Player driving/riding the mount
Unmounting – Player getting off/out of the mount
```
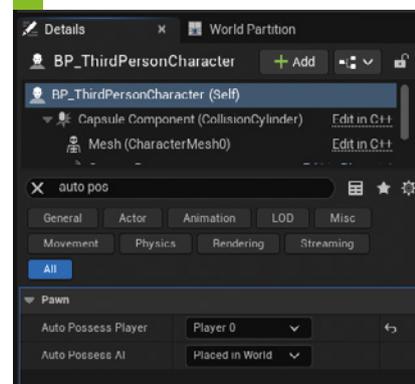
When planning a system like this, it's imperative to take the extra time to plan ahead – especially when dealing with multiple classes like we are here. If something were to go wrong as we made our system, we'd potentially have to go hunting in multiple classes in possibly many different areas, trying to track down nasty bugs or issues.
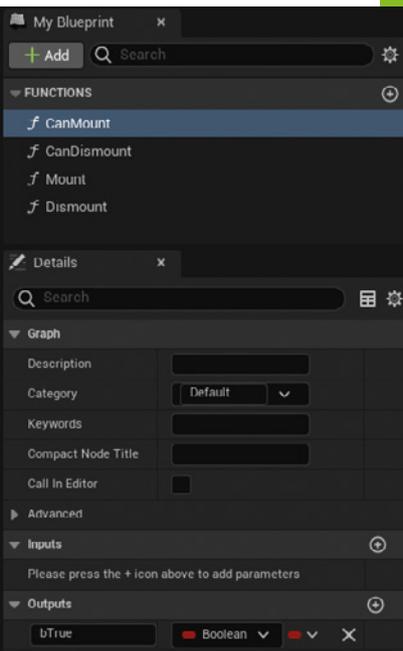
In this instance, there's a solution we can use to mitigate those spider-webbing points of failure, as well as make our system more scalable for extra mounts in the future. This means if we wanted to add a horse or a flying mount in the future, we can prepare our codebase in such a way that they can be added non-destructively to what we're about to create.

The solution? Interfaces. Interfaces are a class that acts as a go-between for the other classes to ensure they definitely have a set of functions, so we can tell Class B to fire X function without needing to know anything about Class B.

To find out more about Interfaces, let's start by implementing one. In the Content Browser, head to the Add menu again, this time selecting →

◀ Figure 2: Even if this bug gets fixed in the future, ensuring these plugins are enabled is good practice when dealing with premade content that uses Chaos Vehicles.

⌄ Figure 3: With more options than ever, the search box in the Details panel can be a lifesaver. Don't be afraid to use it if you're struggling amongst the sea of options in your classes.

Figure 4: Interface classes don't let us add any code in the Interface itself – it is up to the class attached to deal with that. We can only deal with entry/exit points within the Interface class.

Figure 5: Interface functions with outputs turn into a function when implemented in a Blueprint. If they don't have an output, they turn into events!

Blueprints > Blueprint Interface. Name the generated class BPI_Mount.

This class will act as our communication line between our player and any type of mount created now or in the future.

The next step is to create functions inside the BPI_Mount that we can call or bind in any class the interface is attached to.

We previously discussed the states we need to account for in our system. If we filter them through the perspective of the mount itself, we end up with:

```
Unmounted - Can I mount this?
Mounting - Mount this
Mounted - Can I dismount this/here?
Unmounting - Dismount this
```

Two are specifically questions and two are direct actions.

Open up the Interface class and create four functions using the function palette (usually located on the right). Name these functions like so:

```
Can Mount
Can Dismount
```


Figure 6: The eagle-eyed may have noticed we called our output variable 'bTrue', but it shows up as just True. Unreal helpfully stripped the 'b', which is used as a default coding standard to indicate a Boolean!

```
Mount
Dismount
```

For the two Can functions, click in the Functions list and make sure within the Details panel they have two bool (true or false) outputs named 'bTrue' (see **Figure 4**).

Within the Mount function, ensure it has an INPUT set to Actor (Object Reference) and called Actor Ref. We will be using these to reference the player in our mounts.

Our Interface is now ready to implement into our Mount, so head into the Content Browser and find the SportsCar_Pawn (Content > VehicleTemplate > Blueprints > SportsCar), and double-click it to open it up.

Inside the Blueprint, head to the top ribbon and select Class Settings to open the correct panel. Within the panel, you'll see a section marked 'Implemented Interfaces' under Interfaces. Click the Add button and add our interface (BPI_Mount).

Now that the Interface has been created, we can implement the functions we created earlier. Head to the left of your screen to the My Blueprint tab – you'll see an area now marked Interfaces. Click the arrow if your interfaces aren't in the list and we can now see the Interfaces this class has access to (**Figure 5**).

For the sake of this guide, we're always going to allow the player to mount and dismount no matter what, but pay attention carefully to what we're about to do because you want to revisit this in the future to add your own functionality.

Double-click the Can Dismount interface within the My Blueprint tab to open the function. Find the output node and ensure True is checked (meaning that we can always dismount). Do the same for Can Mount (**Figure 6**).

The time's come to look at the Mount function, which Unreal has turned into an event for us (due to having no output). Logically, there are two valid approaches we can take when dealing with

mounting; we can either hide the player when they get in or on the mount, or we can destroy them and recreate them later when it comes time to dismount.

Normally, there would be a performance consideration for the destroy method, especially if you were dealing with many actors and a large world. We'll keep this approach in our current project for now – it's just something to keep in mind if you flesh the system out in the future.

Double-click the Mount interface in the My Blueprint panel to create the Mount event.

NEXT STEPS

With the Mount event created, we need to understand what we need to do from here. Step one is to change the user's camera to the car's. Step two is to destroy the player character as we no longer need it. The third and final step is to let the player drive the car.

Let's start with step one. Note that if you were to flesh out the system, this would be the part where you'd play the 'Player getting in/on the mount' animation or whatever visual effect you'd like to use. For this project, we're just going to change the camera.

Right-click in empty space in the Blueprint and create a Get Player Controller node. From the Return Value pin on the created node, click and drag into empty space and then create a Set View Target with Blend node. This is what we'll use to change the camera.

Connect the input execution pin of the Set View Target with Blend node to the output execution pin of our created Event Mount. In empty space, open up the Blueprint palette again and this time select 'Get a reference to self' to create the Self node. Connect this to the New View Target pin.

Figure 7: With this node setup, our camera will smoothly move to the new position, ready to ride the car.

Finally, we need to decide how long the transition between the cameras is going to take. In Blend Time, enter 1.0. We want our camera to seem as though it's smoothly gliding into the new position, so change Blend Func to VTBlend Ease In (**Figure 7**).

The camera moving's going to take one second to complete (Blend Time), so let's add a Delay for one second using a Delay node. Once that one second is up, we're now going to move to step two and destroy the old player.
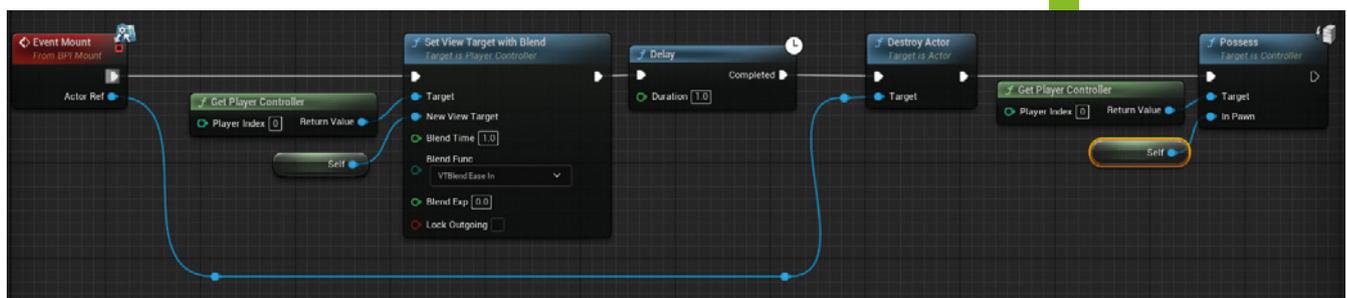
Head back to the Event Mount event and drag the Actor pin to empty space, creating a Destroy Actor node. Hook this in after our Delay node. With our player destroyed, we need to Get Player Controller again and Possess this current pawn, which in this case is the car (or Self). You should now be comfortable enough to put what we've just described together, so just go ahead and do it (**Figure 8**).
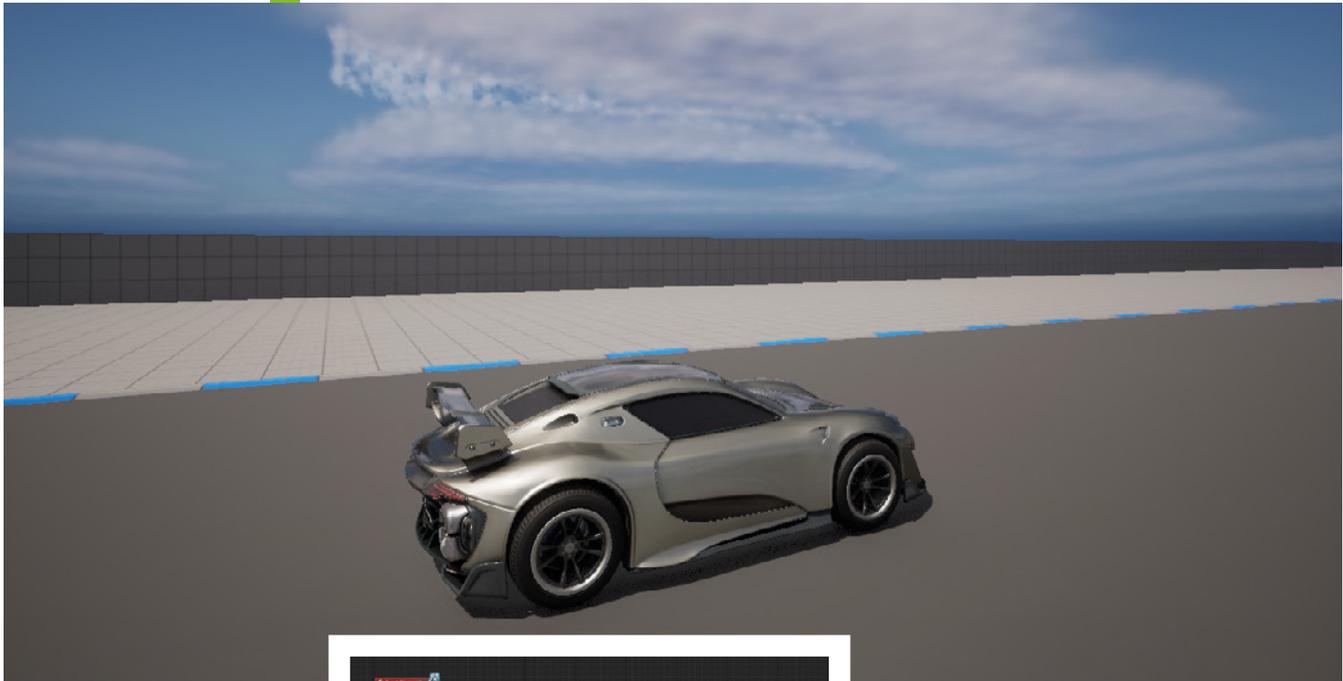
That's all we need to do our Event Mount code. Now let's deal with the Event Dismount. Remember to double-click the Dismount in the Interface area of the My Blueprint tab to create the event. Within Event Mount, we destroyed the player – which is unfortunate, as we need it now. Luckily, we know the class we want to use, so let's create a Spawn Actor from Class node and hook it into our Event Dismount execution pin. →

"Step one is to change the user's camera to the car's"

ALL UNREAL

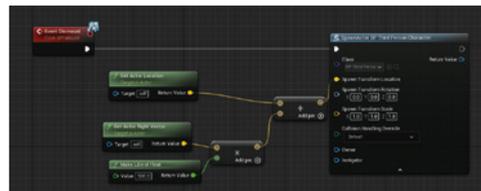While this guide was written in Unreal Engine 5, you can still follow along in Unreal Engine 4.

Figure 8: This is what your finished Event Mount code should look like.

∧ **If all's gone to plan, you should now be able to get in your car, go for a drive, and get out again. Hurrah!**

❯ **Figure 9: Your Spawn Actor code should end up representing this.**

In the Class drop-down menu, set the class to BP_ThirdPersonCharacter. Right-click the Spawn Transform pin and select Split Struct Pin. In empty space in the Blueprint, create these nodes:

Get Actor Location
Get Actor Right Vector
Multiply
Make Literal Float
Add

What we're going to do with these nodes is make the player spawn to the right of the car. As this is outside the scope of what we're learning here, we won't go into too much detail on the maths behind it all.

Connect the Get Actor Right Vector into the first input pin of the Multiply node. Connect the

Make Literal Float output to the second input of the Multiply node and set the value to 500. With the Add node, plug the Get Actor Location into the first pin and the output of the Multiply node into the second pin. Finally, connect the output to the Spawn Transform Location input node (**Figure 9**).
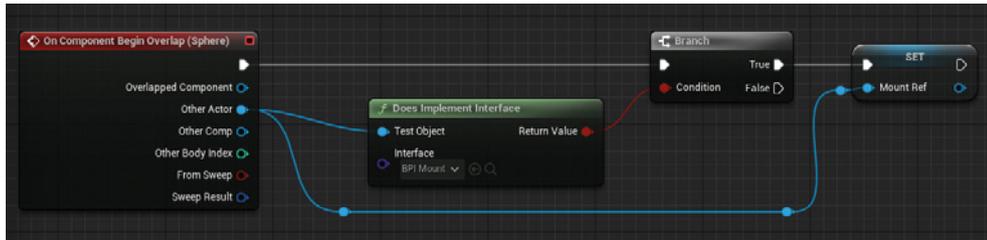
Now that we have spawned the character, duplicate the Set View Target with Blend node (along with the Delay and the Get Player Controller nodes) and place the duplicated code after the SpawnActor node. Plug the execution pins up and plug the Return Value of the SpawnActor node to the NewViewTarget of our duplicated code.

We don't need to destroy the mount like we did before, but we do need to Possess our created player. Duplicate the Possess code (minus the Self node) and plug it in after our delay. Hook the Return Value of the SpawnActor node into the In Pawn of the Possess node (**Figure 10**).

We've finished our Event Dismount code now, but we still need a quick way to trigger it. We can do this by adding a temporary input. In empty space, open the Blueprint palette and create an InputAction Jump node. This means we'll temporarily use the input that is usually used for jumping for getting out/off the mount. Open the Blueprint palette and create a Dismount node (make sure you don't select Event Dismount). Connect this node to the Pressed output of the InputAction Jump.

∨ **Figure 10: The final code for Dismounting using Event Dismount.**

That's all we have to do for our SportsCar_Pawn. Now, let's head into our character and add the finishing touches so that we can enter and exit the vehicle.

CAR PAWN

Double-click the SportsCar_Pawn located at Content > Blueprints > BP_ThirdPersonCharacter. In here, we're going to add a SphereComponent that's going to look out for mounts and store them or empty the variable as they leave the sphere. We're then going to remove the code connected to the Jump button and turn that into our Mount functionality if a Mount was found.

Within the Components area, click the Capsule Component then click Add and select Sphere Collision. Select the created Sphere component and set the sphere radius to 125 in the Details panel. Right-click the Sphere component, select Add Event and choose Add On Component Begin Overlap. This is to create an event when something touches this sphere (**Figure 11**).

From the Other Actor pin of the On Component Begin Overlap, drag it into empty space and create a Does Implement Interface node. Create a Branch (true or false) node and plug in the Condition input to the output of the previous node. Connect the execution pins up and set the Interface to our Interface (BPI_Mount).

Right-click the Other Actor pin and select Promote to Variable. Plug the generated node to the True output of the Branch. Name the created variable Mount Ref (**Figure 12**).

Find the existing InputAction Jump event and remove the Jump and Stop Jumping commands. Grab the Mount Ref variable we created and bring it into the Blueprint as a Get if asked.

> **"You could experiment with different vehicles or rideable creatures"**

From the Output pin, drag to empty space and create an IsValid node – select the one with the question mark icon. Plug the Exec input to the Pressed output of InputAction Jump.

Grab your Mount Ref variable again and drag the pin once more. You should be able to make a Can Mount node. Plug the IsValid execution line into this created node and add a Branch node to the Boolean output. Get the Mount Ref variable one last time, drag the output in and create the Mount node, connecting it to the True output of our branch. Create a Self reference and plug it into the Actor Ref input of the Mount node (**Figure 13**).

Use what you've learnt so far to add an On Component End Overlap event. Bring in your Mount Ref variable, this time making it a Set node to set it to nothing, and we've finished. We can now successfully get in our mount, ride it around, and get out again!
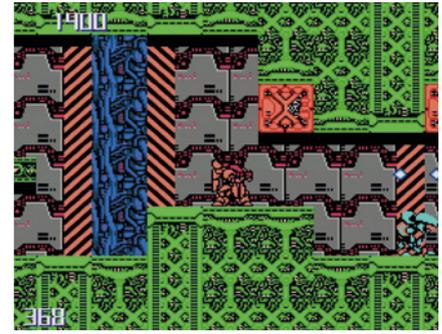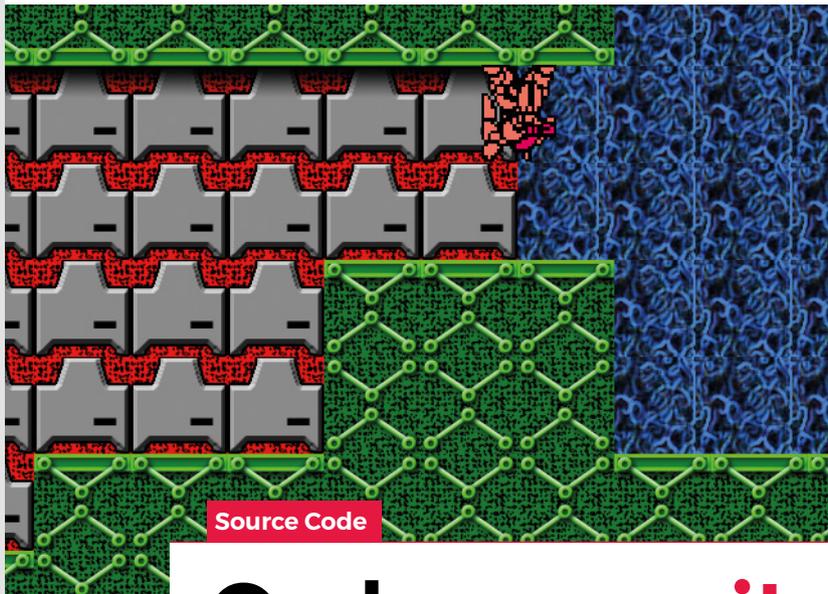
This has been a rudimentary crash course in the subject of mounts, but by using what you've learned here, you could easily experiment with different types of vehicles or rideable creatures. You could also go back and change the functions we made for when you can or can't use a mount, or add animation and other visual touches to properly immerse the player when they get in or out of their vehicle, or clamber on or off their magical flying horse. The possibilities, as always, are endless. ⓦ

INTERFACES

Interfaces are a powerful tool that get more useful and powerful as more classes use them. While we're only using interfaces for one class in this guide, the system we create will be scalable for projects of any size.

∧ The M-308 Gunner on its way to disabling a futuristic defence system.

< Our gravity-flipping *Metal Storm*-style game.

Code a gravity–defying platformer mechanic

Walk on the ceiling in our homage to Metal Storm on the NES

AUTHOR
MARK VANSTONE

At the start of 1991, a refreshingly new platformer came out for the NES. *Metal Storm* was unique in that it allowed the player to switch the direction of gravity so that their M-308 Gunner mech could walk on floors or ceilings. With the range of enemies and bosses sent out to destroy the player, it all made for quite a complex, challenging game for its time.

For this example, we'll focus on this gravity mechanic to code a Pygame Zero version of the game. *Metal Storm* features a parallax scrolling background, which we create by drawing two background layers. The first is a blue squiggly pattern and will move at half the speed of the main platform layer. We track the position of the background X coordinate with the variable `mapx` and divide that by 2 when drawing the blue background. Then we draw the section of the platform map that will appear on the screen.

To define where our platforms and walls are positioned, we use a small image with one pixel representing each platform block. We have green pixels for the green blocks, grey pixels for the grey blocks, and

red pixels for the areas through which you can see the background. Each block is drawn as a 75 × 75 pixel image.

Next, we need our Gunner. A quick trip to **spriters-resource.com** will provide some suitable animation frames to make into an Actor. Our player character will normally be positioned in the centre of the screen on the X axis and move up and down on the Y axis.

We can set the left and right arrow keys to move the platforms behind the Gunner as it walks, but we need to check our minimap image to make sure it doesn't walk through any walls. We can add a bit of code to the `movement` function to check if our Gunner has reached the edge of the map, and if so, move the Gunner Actor instead of the platforms. The walking animation is done by cycling through numbered frames for either left or right movement.

We also want our Gunner to be able to jump. By default, we set our Actor to fall downwards until it reaches a platform. Some of the platforms will be low enough to jump up onto, and we can assign the **SPACE** bar to perform the jump animation. When the **SPACE** bar's pressed, we assign a value to the `jump` property of the

Gunner Actor. When we update the Actor, if the `jump` property is greater than zero, we boost the Actor into the air and reduce the `jump` value by 1. Once `jump` reaches zero, we stop boosting and let the Actor fall by applying the default gravity calculation.

Now we have a Gunner walking and jumping around, we need to be able to switch the gravity from one direction to the other. To do this, we add a `gravity` property to the Gunner Actor. To start with, we'll set this to 1, and any calculations we do that involve movement on the Y axis, we multiply by this value. With this value as 1, everything will stay the same, the Gunner will fall downwards and jump upwards. But if we change it to -1, the same calculations will cause the Gunner to fall upwards and jump downwards, providing the effect of gravity being switched. This also means the mech can get past obstacles that we wouldn't be able to jump over. We set this switch from 1 to -1 to happen when the up arrow is held down and the **SPACE** bar is pressed.

And there we have it: a gravity-switching, *Metal Storm*-style platformer. All that's needed now is a range of enemy robots and a way to shoot them, but we'll leave those additions to you. Ⓦ

Break the law of gravity

Here's Mark's code for a *Metal Storm*-style platformer in Python. To get it running on your system, you'll first need to install Pygame Zero. You can find full instructions at **wfmag.cc/pgzero**.

```python
# Metal Storm
import pgzrun
from pygame import image


gunner = Actor('gunnerr01',(400,400))
gunner.direction = "r"
gunner.jump = 0
gunner.onground = False
gunner.gravity = 1
count = 0
mymap = image.load('images/map.png')
mapx = 0


def draw():
    drawBackground()
    drawForeground()
    gunner.draw()


def update():
    global count
    gunner.image = "gunner"+ gunner.direction + "0" + str(gunner.
gravity)
    if keyboard.left:
        moveGunner(-2,0)
        gunner.direction = "l"
        gunner.image = "gunnerl"+ str(int(count/6)%3) + str(gunner.
gravity)
    if keyboard.right:
        moveGunner(2,0)
        gunner.direction = "r"
        gunner.image = "gunnerr"+ str(int(count/6)%3) + str(gunner.
gravity)
    checkGravity()
    if gunner.jump > 0:
        gunner.image = "gunner"+ gunner.direction + str(int(count/6)%3)
+ str(gunner.gravity)
    count += 1


def on_key_down(key):
    if key.name == "SPACE":
        if keyboard.up:
            gunner.gravity = gunner.gravity * -1
        else:
            if gunner.onground == True:
                gunner.jump = 18


def drawBackground():
    xoff = (mapx/2)%75
    for x in range(0,13):
        for y in range(0,8):
```

```python
            screen.blit("block6",((x*75)-xoff,(y*75)))


def drawForeground():
    xoff = mapx%75
    for x in range(0,12):
        for y in range(0,8):
            pixel = mymap.get_at((int((mapx/75)+x),y))
            if pixel == (0, 255, 0, 255): screen.blit("block1",((x*75)-
xoff,(y*75)))
            if pixel == (0, 100, 0, 255): screen.blit("block2",((x*75)-
xoff,(y*75)))
            if pixel == (0, 150, 0, 255): screen.blit("block3",((x*75)-
xoff,(y*75)))
            if pixel == (255, 255, 255, 255): screen.
blit("block4",((x*75)-xoff,(y*75)))
            if pixel == (125, 125, 125, 255): screen.
blit("block5",((x*75)-xoff,(y*75)))


def moveGunner(x,y):
    global mapx
    mx = int((mapx/75)+((gunner.x+x)/75))
    my = int((gunner.y/75))
    pixel = mymap.get_at((mx,my))
    if mapx+x < 6676 and mapx+x > 0 and gunner.x == 400:
        if pixel[0] > 0:
            mapx += x
    else:
        if pixel[0] > 0:
            gunner.x += x


def checkGravity():
    mx = int((mapx/75)+((gunner.x)/75))
    my = int((gunner.y/75)+(0.5*gunner.gravity))
    pixel = mymap.get_at((mx,my))
    if pixel[0] > 0:
        gunner.y += (5*gunner.gravity)
        gunner.onground = False
    else:
        gunner.onground = True
        if (gunner.y+(37*gunner.gravity))%75 != 0:
            gunner.y -= gunner.gravity
    if gunner.jump > 0:
        pixel = mymap.get_at((mx,my-(1*gunner.gravity)))
        if pixel[0] > 0:
            gunner.y -= (gunner.jump*gunner.gravity)
            gunner.jump -= 1
        else:
            gunner.jump = 0


pgzrun.go()
```

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Ship of Fools

The ability to strategise and keep a cool head are key in *Ship of Fools*, Fika Productions' upcoming co-op rogue-lite in which you and a friend scramble to protect your vulnerable boat from the hordes of enemies that assault it from all sides. It's an enjoyably chaotic game concept, and it's up to art director Vincent Rochette and his team to ensure that the action remains legible even when there are dozens of monsters crowding the screen. "In a fast-paced game, designing simple and readable characters is essential," Rochette tells us. "This is usually done by creating distinctive silhouettes; having solid value contrasts can help a lot as well. It's also important to keep visual noise to a minimum, but that's not always easy when you have 20 enemies on screen at once. For us, having a solid back and forth between the concept artist, the animator, and the level designer is important."

When it comes to generating the character designs – and you can see some of them dotted around these pages – these often spring from lengthy sketching sections, though some will also come from game designers as they create a project's objectives. "Concept artists are visual storytellers," Rochette says, "So it's essential to include them early in the process."

It's pleasing to see the games industry falling back on hand-drawn art and other traditional techniques, especially as we're seeing fewer and fewer 2D animated films in cinema. So does Rochette think that those traditional techniques have found a new home in video games? "Games like *Gris*, *Don't Starve*, and *LIMBO* seem to put a higher focus on art direction," he says. "And with the success of these titles, I think it's fair to say gamers are responding to it. We often hear the mantra of 'gameplay is king', but I would add that style is queen – and as any chess player can attest, her importance shouldn't be underestimated."

SWEET CHARITY

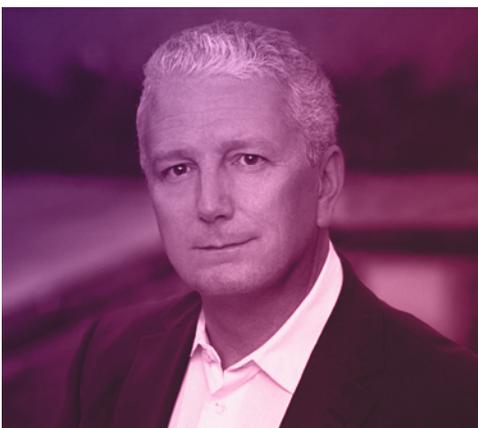## WHEN VIDEO GAMES
SUPPORT WORTHY CAUSES

Gaming can seem a selfish and isolated hobby. But the industry has a long history of raising money, right up to the present day

WRITTEN BY **ANDREW FISHER**

Famine was headline news around the world in the 1980s. But as the humanitarian crisis unfolding in Ethiopia became apparent, Rod Cousens of British publisher Quicksilva resolved to do something about it. "The pictures were harrowing," Cousens recalls. "To sit idly by was not an option. Watching Bob Geldof mobilise the music industry into action led me to believe the video game industry could be similarly galvanised."

Thus began his work in launching the charity compilation *Soft Aid* for the ZX Spectrum and Commodore 64, released in 1985. "There was widespread willingness to help," says Cousens, "so it became a logistical process involving rights holders, software publishers, developers, platform holders, retailers, distributors, magazines, manufacturers, printers, accounting firms, etc. And in rapid time we were able to get everyone on board."

David Rowe, known at the time for his eye-catching *Ant Attack* cover art, was hired to create the artwork for *Soft Aid*'s inlay. "David was a long-standing friend from my school days who also happened to do artwork for Quicksilva," says Cousens. "He was very passionate about the project, wanted to help, and created the original artwork – it spoke a thousand words and was truly inspirational."

Added to the cassette was the Band Aid charity single *Do They Know It's Christmas?*, released the previous year. Recalls Cousens, "Quicksilva's physical distribution was done by CBS Records – now Sony Music – and I asked them if they could help introduce us to Bob Geldof. They passed me on to PolyGram who reached out to him directly. I asked for his blessing, to which he swiftly replied, 'You got it.' "

The compilation topped the charts for 18 weeks, a record that wasn't broken until the release of Ocean's *RoboCop* tie-in three years later. "We were amazed," says Cousens. "It touched a nerve, obviously, and people of all ages were moved by the disaster. Gamers wanted to do their bit and that came through in the sales."

The charity work continued, with Cousens and Greg Ingham setting up a trust fund to continue fundraising at industry events. "Having started the industry charity initiative, I thought our efforts should be targeted at young, disadvantaged, and vulnerable people. Those who'd suffered as a consequence of drug abuse and were often misunderstood… The Prince's Trust was doing great work in this area." This resulted in *Off The Hook*, a second compilation of games released in 1986. It also featured striking cover art by David Rowe.

Cousens has continued to raise money for charity through the games industry. "For years, we put together multiple initiatives and we gained momentum, going as far as to form a ➡

DESERT DREAMS

Desert Bus was a minigame in the unreleased Mega-CD title *Penn & Teller's Smoke & Mirrors*. Driving a faulty bus from Tucson, Arizona to Las Vegas, Nevada, the game takes *eight hours* in real time, limited to a maximum speed of 45mph and veering to the right constantly. There's no pause function and going off-road sees the vehicle towed back to Tucson in real time. Unleashed onto the internet in 2005, in 2007 a team of four from the Canadian sketch group LoadingReadyRun took it in turns to play a marathon session screened via webcam. Donations (including money and pizza sent by Penn & Teller) made over $20,000 for Child's Play. The 2019 documentary *We Are Desert Bus* chronicles the history of what became an annual event – 2021's online efforts using a cloud-based emulator raised over $1 million, taking the total to $8 million.

STREAM QUEEN

Twitch steamer Aravelle (**twitch.com/aravelle**) raises money for charity and is an ambassador for SpecialEffect. We asked her for her thoughts on running a streaming fundraiser.

CHOOSING GAMES/THEMES
"Games that aren't too fast-paced, and games the community asked me to play – something easy to dip in and out of."

HOW LONG?
"I stream between two to six hours as this is when I get uncomfortable – I have fibromyalgia. I'm a big fan of stream schedules, letting people know when streams begin."

PROMOTION
"Social media – create eye-catching artwork encompasing the logos of the charities, tag them to let them know what's happening, make a video, and share resources from the charities. I provide updates when we hit milestones."

COLLECTING FUNDS
"Have alerts for when people donate and react in real time. Make it easy to find where to donate. I use Streamlabs for on-stream alerts, and JustGiving or Tiltify extensions – these send money directly to the charity and keep a running total."

LAST THOUGHTS
"Streamers of all sizes can raise money. Make time to eat and stay hydrated. Understand what the charity does. Choose causes you believe in and know that every penny you raise is amazing."

steering committee including Greg Ingham and Paul Gardner. We targeted raising at least £1m a year for these causes, and we did that for more than 13 years. We supported charities such as epilepsy, blind people, sports charities, schools and academies, hospices, and so forth. We also helped victims of the tsunami in 2004, particularly orphans in Sri Lanka. Larry Sparks, now of Square Enix, and Mark Strachan were both very helpful."
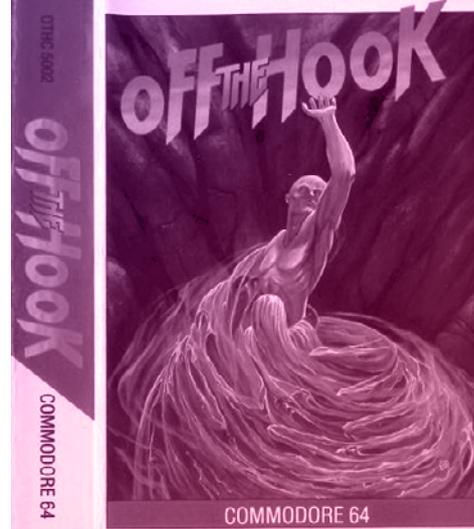
A LITTLE HELP
With its pink and yellow neon cover, the *Kidsplay* compilation was distinctly 1980s; released in 1987, it bundled ten games together and raised funds for the NSPCC. The following year, controversy hit another fundraiser: Codemasters' *The Race Against Time*, with game design by the Oliver Twins. Tying into the Sport Aid '88 campaign, players controlled Sudanese runner Omar Khalifa, travelling around the globe to light beacons. Gameplay was similar to the Olivers' *Dizzy*, with objects needing to be used in the right place while a version of Peter Gabriel's *Games Without Frontiers* played in the background. The initial cover of the Spectrum game featured a photo of athlete Jesse Owens without his estate's approval; it was withdrawn and replaced with an image of Carl Lewis. Eventually, the game sold just 25,000 copies and missed its £1 million target.

In the 1990s, several other charity compilations emerged, all confusingly called *Help*. The Amiga and DOS collections released in 1994 raised funds for the Prince's Trust, while the 1996 compilation on PlayStation donated to children's charities. *Help* was also the name of War Child's first charity album, and that organisation eventually moved into gaming.

> **"Sports Interactive gives money to War Child from *Football Manager*"**

▲ The 1986 *Off The Hook* compilation raised funds for The Prince's Trust.

Comic Relief in the 1990s was symbolised by the plastic red nose, and the tomato-shaped red nose from 1993 featured in a game: Ocean Software's *Sleepwalker*. Chris Walsh was the programmer on the C64 version. "We got offered the project about five months before Comic Relief," he recalls. "The design and graphics of the [Amiga] original was done by CTA Developments. We had to make some design changes and remake the graphics."
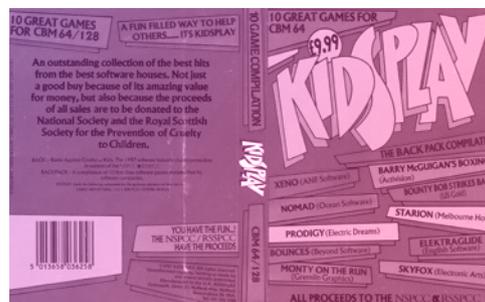
Sleepwalker saw Ralph the dog protect his sleepwalking owner by either triggering traps or hitting enemies. Says Walsh, "I liked the idea – I've seen a similar thing implemented in FPS games since. The game mechanic makes a change from just shooting everything that moves!"

Sleepwalker scored highly in magazines, and according to Walsh, the C64 version sold around 15,000–20,000 copies.

More gaming charities and foundations were established in the 2000s. The annual Desert Bus For Hope marathon raised funds for Child's Play (see box on previous page). David Miller, head of gaming partnerships, explains that War Child Gaming got its start in 2006 thanks to the long-term support of Sports Interactive CEO Miles Jacobson. "The relationship between War Child and Sports Interactive is entirely down to his enduring wish to support us," Miller says. "Sports Interactive still donates money to War Child from every copy of *Football Manager* sold. War Child's unique in the work that it does: protecting and supporting children in some of the most dangerous and deprived places in the world, like Yemen and Afghanistan – and since February, we've been working in Ukraine and its borders with Romania and Moldova. We provide emergency relief, [mental health] support, reintegration, and safe spaces to play and learn."

There are several annual campaigns from War Child Gaming – the most recent being Game

▲ The *Kidsplay* compilation raised money for the NSPCC.

CARRYING NOTHING.

Action, a fundraiser for the charity's work in such conflict zones as Afghanistan, Ukraine, and Yemen, which ran in late August 2022. Next up is Day Of The Girl, a sale due to run in October. Says Miller, "This sale will feature games with a strong female protagonist or games that come from teams or studios where women are prominent. We want to celebrate the achievements of girls and women in games and raise money for our work supporting victims of sexual and gender-based violence in the Middle East and Africa. We're actively seeking developers and publishers who would like to get involved."

The sale coincides with International Day of the Girl Child on 11 October, sanctioned by the United Nations. Miller adds, "I must also give a shout-out here to another amazing partner, Wargaming. *World of Tanks* has been at the core of the Armistice campaign for several years. Like Wargaming, War Child believes that tanks belong in a game – or indeed a museum – and no longer in our society."

In the 2010s, the rise of streaming provided a new way to raise money for charity. Speedrunners also do their part, through Summer Games Done Quick (SGDQ). And here in the UK, Games Aid became the industry's major fundraising body. Members vote to decide which causes to donate to each year. In April 2022

alone, Games Aid raised £50,000 from events, including a comedy night and golf day.
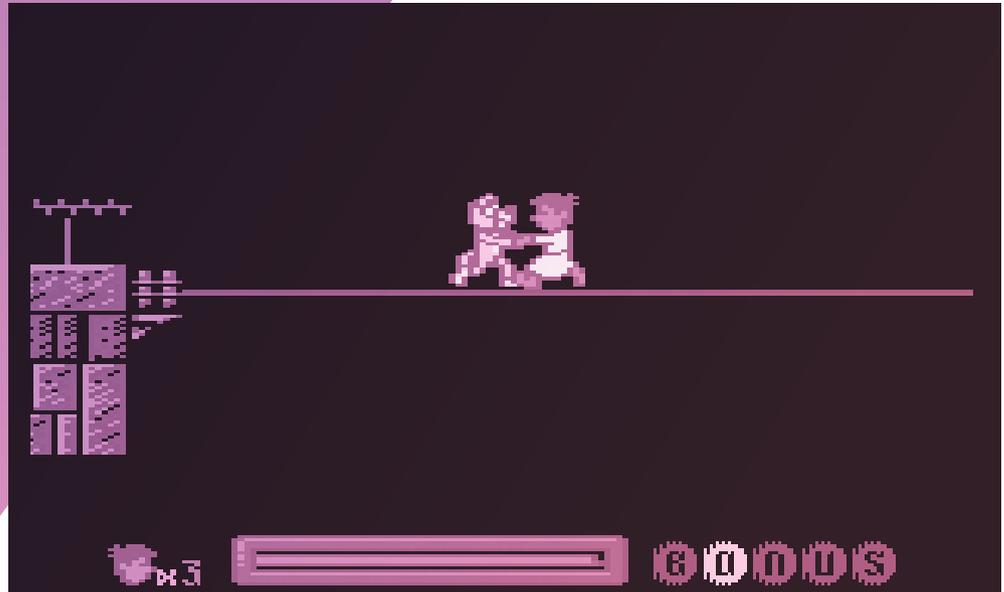
BEGINS AT HOME
The UK has several major charities working with and for gamers. One of those is SpecialEffect, an organisation dedicated to providing video game equipment for those with disabilities, and also to making games more accessible to the less able-bodied. The charity was founded 15 years ago by its current CEO, Dr Mick Donegan, and since then, it's worked with some of the industry's largest companies. Explains communications officer Mark Saville, "We've been involved in many exciting collaborations: working with EA Sports on making games like *FIFA* more accessible, with Microsoft on creating the Xbox Adaptive Controller, and Logitech on the Adaptive Gaming Kit to name a few. We've also produced a freely available dev kit for game developers looking to improve the motor accessibility of their games for players."

"Accessibility to gaming covers a wide range of issues," Saville continues. "Every person's disability is different and requires careful and ongoing assessment if the gamer's to make the most of their abilities. Along with the accessibility options available within games themselves, ➡

▲ **Chris Walsh, programmer of *Sleepwalker* on C64.**

> Ralph can push Lee around and 'kick' him upwards in *Sleepwalker* (C64); Ocean remade the game as *Eek! the Cat* for SNES.

our specialist therapists consider a large number of additional factors. It's very humbling when everything comes together and we learn that our careful planning, advice, and equipment loans have helped a gaming experience to blossom. There are smiles all around here when we hear that someone we've supported is having the time of their lives beating their friends and family."

Streaming has provided a valuable means of raising funds, according to Saville, as have efforts outside gaming, including sporting events and sponsored runs. All of this helps the charity remain up to date with its equipment, which is often expensive. "We're constantly being asked to explore the capabilities of cutting-edge technology in unique ways – eye control for example – and much of the technology involved can be expensive," says Saville. "Demand for our help is continually rising. Every year presents big financial challenges, but we're committed to providing lifelong support to the people we help. It's why we're immensely grateful to everyone who has raised funds for us."

Gamers can get involved in fundraising too, Saville adds. "We don't charge for any of our support, so we're so grateful to the gaming industry and community for the imaginative ways that they've helped us. There's our annual GameBlast streaming event every February that involves sponsored gaming marathons, speedruns, forfeits, and giveaways, and

> **"The power of gaming is truly amazing in raising awareness and support"**

throughout the year, individual gamers and their communities support us through their own online and offline events. The industry's involved in these events through sponsorship and participation, and there's our flagship One Special Day in October [7 October 2022], where we invite the industry to pledge one day of revenue to support our work."

MIND GAMES

A more recent charity related to mental health issues is Safe In Our World – an organisation aimed specifically at those working in the games industry. According to communications officer Rosie Taylor, the idea for the charity first emerged at a 2017 gaming event in Shanghai. Recalls Taylor, "A group of people who became our Trustees identified the need for a mental health charity to focus on gamers and those who make our games and got to work."

Safe In Our World was officially launched on World Mental Health Day 2019, and since then, wider discussions of mental health issues have given the charity a key role in the industry. "I think we're on our way to having a more open discussion through the medium of games regarding mental health," Taylor says. "There is still a lot of stigma surrounding mental health and mental illness, and games have more power than we think to help steer the narrative from damaging stereotypes and toxicity. Because so

^ **Specially adapted controllers and switches are loaned out free of charge by SpecialEffect.** *Credit: SpecialEffect*

many people play games, and mental health has grown in discussion especially since the pandemic, it's an ideal platform to introduce awareness around potentially life-saving resources that gamers might not be aware of."

Support from the industry has come through the Level Up Mental Health campaign, says Taylor. "Level Up has been a fantastic success in the two years it's been running, and we've over 100 Partners dedicated to creating more supportive workplaces for their employees' mental health. Games companies can and do so much to support our mission in destigmatising mental health within games, simply through engaging with their audiences and approaching these topics with care and resources. It's fundamental that we continue to work alongside companies to make tangible change within the mental health culture of the industry and make it a safer space for all."

Streaming has raised awareness of Safe In Our World, Taylor adds ("We have an incredible

community of fundraisers who use gaming to raise money for the charity"), while such events as marathons and bowling competitions have also helped raise awareness and bring in more funds. Another way to contribute is through Seven Squared, the company specialising in retro-themed T-shirts and hoodies, donating proceeds directly to Safe In Our World.

The people we spoke to for this article widely concur that gaming should get more recognition for its charity work. As David Miller puts it, "I can honestly say that this is a very kind, generous, and inclusive industry with which to be partnering."
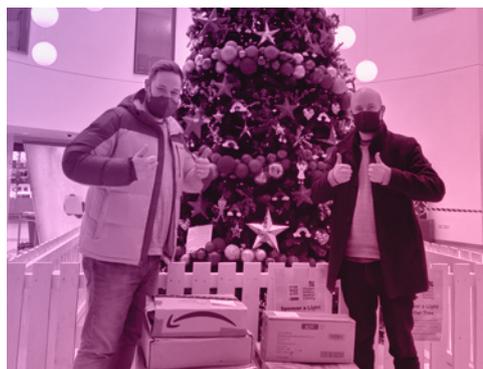
Get Well Gamers UK's Stu Ower (see box) adds, "There are so many companies and communities taking part in fundraising activities that are vital. The amount of support we have seen across the Twitch streaming community is unreal, and you only need to look at events like GDQ to see the positive impact gaming can have on the world."

Rosie Taylor agrees. "Gaming has played an incredible part in raising money and profile for charities. The industry itself is massive and has contributed to so many incredible causes through the compassion of its player base. The power of gaming is truly amazing in raising awareness and support and I'd love to see more recognition of the positivity that has come from it."

Let's give the final word to Rod Cousens, who kicked things off years ago with *Soft Aid*. "When we supported Band Aid, the games industry was very much a minority piece, but as a percentage of funds raised, [*Soft Aid*] punched above its weight," he says. "The industry also benefited from the support of platform holders. With the standing and value of the games space now, we can raise ourselves to even greater heights." ⓦ

^ **David Miller, head of gaming partnerships at War Child Gaming.**

^ **Stu Ower (right) and a pile of donations to Get Well Gamers UK.**

GET WELL: GET INVOLVED

Much like the American organisation Child's Play, Get Well Gamers UK is a charity that provides games to sick children in hospices and hospitals. The organisation's been running for four years now, and if you're wondering how you can get involved, its head of e-commerce, Stu Ower, has some advice. "Donating your old games and consoles; donating money – a one-off or recurring donation, fundraising through bake sales or fun runs, or from Twitch charity streams; donating time – by volunteering you can help with almost anything, from receiving and sending out donations, helping at events, or supporting with marketing or IT."

Games companies have got involved too. "We get a massive amount of support, whether it's donating games, download codes, consoles, or controllers, taking part in fundraising and donation drives, or simply sharing what we do, it's all hugely appreciated. While most fundraising activity we see is gaming related, we have seen more traditional non-gaming-related activities and donations from merchandise sales."

How I became a...
UX designer

Creative Assembly's **Anna Wikström** demystifies the art of making games understandable for players

Can you remember the moment that first made you want to get into the industry?
I've always played and loved games growing up, but I didn't see video games as a career path or something I could do as a job. The game that actually made me feel that I could work in games was *Skyrim*. Or more specifically, *Skyrim* mods on PC. I spent countless hours looking through mods, watching YouTube channels about new mods, downloading them, organising the mods list, and trying them all out in the game. It gave me a look at how some small features can change a game in very big ways. That was fascinating to me and made me want to do that in more games!

How did you break into this industry?
I feel like it was almost by luck that I started working on my first game.
    I actually got into the games industry by being a consultant first. I got a job as a UX consultant in Stockholm, and when you are new there, you do a small prese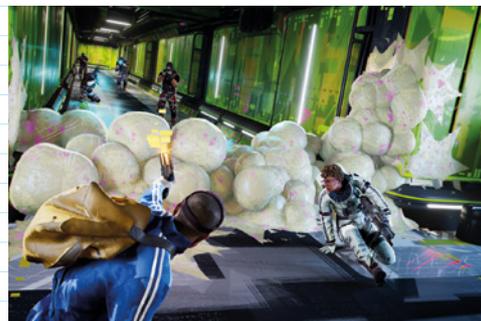ntation about yourself. I mentioned how much I love video games in my presentation. I didn't think much of it, but one of the salespeople (their job is to "sell you in" to work for a company) called me after and asked: "You said you like video games, right?" I said yes, and he said he had an interview for me the following week! He was the one that got me an interview at DICE.

What was the first game you worked on professionally, and are you still proud of it?
The first game I worked on at DICE was *Star Wars Battlefront II*. I'm very proud of it, even though it had a bumpy launch. I'm also very proud of the game modes I worked on after launch.

Did you always want to work in UX specifically? What's the appeal if so?
My path to UX design wasn't straight. I didn't know this was a real job until I went to design school. That was my first introduction to UI (User Interface), UX (User Experience), User Research, design principles, and everything else that goes with it.
    I tried out working as a UI designer (for apps and websites) for a bit, but I liked UX design more. I felt that I got more control of the important design decisions and the planning of a product in UX. I also love how much psychology, human behaviour, and understanding of human anatomy goes into UX work.

What's the chief responsibility of a UX designer, and how do you achieve it?
The focus of a UX designer is to make sure the game is clear to understand, easy to use, and isn't full of annoying or confusing designed areas or elements.
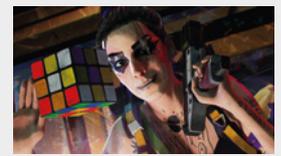
> **"My path to UX design wasn't straight. I didn't know this was a real job until I went to design school"**

⌃ *Hyenas* represents a marked step away from Creative Assembly's typical genre fair, being an online first-person shooter fought in zero-G.

Anna may not have originally envisioned a career in games, but she has quickly become a UX master with a knack for making shooters more readable.

A misconception about UX is that we just want to make all games easier. But UX is not about removing all obstacles in games. Instead, it's about removing the wrong obstacles that are making players confused and annoyed about the game information they see, hear, and try to interact with. We don't want unintentional obstacles to get in the way of having fun.

UX designers achieve this by first understanding players' needs, wants, and experience levels in the type of game we are making. Then we get clear on what the game designers want for the different parts of the game.

Next we set up goals for the design, create user journey maps and wireframes (rough sketches), and go into some more details with mock-ups (more detailed sketches) to plan out the content we need for each screen or feature.

Throughout these steps, we show our ideas and mock-ups to colleagues to collect feedback. We collaborate a lot with other departments to see if this fits into the game experience as a whole.

What's a mistake in your field that you made along the way, but have ultimately learned from?

Stressing about all the details and making them all a big deal. We do a lot of iterations and updates along the way, so I have learned to look at the big picture first to set good goals. Designs and details can – and will – change as the game itself grows. Don't stress yourself out about the small things.

What's one piece of advice you would offer to your younger self, given the chance?

Go after your dreams, even if they change. You miss 100% of the chances you don't take.

Would you say it's easier than ever to work in games, or more challenging?

I don't have that long an experience working in video games, so I can't compare how easy or difficult it was ten or so years ago. But from what I've seen with the development of game tools is that they are a lot easier to use and learn, and they're more powerful now. There are also more resources and knowledge-sharing avenues easily available, so anyone can learn how to make games. Coding, design, 3D, concept art... anything, really. There are free (or cheap) resources out there.

If somebody wants a career in games, what can they do to improve their chances?

Read up on what types of jobs there are in the industry to see what skills you can learn and practise. You might think there are strictly designers, coders, and artists titles in games, but there are many different types of jobs that could be perfect for you in the future.

And make more things! Sketch up small design ideas, get feedback on your stuff, and then iterate and improve on them. Create simple mock-ups for screens and UI, improve an existing game, join a game jam, test out RPG Maker to get your first look into how a game is made. There's a lot of games software you can try out that will give you good skills. ⓦ

Career highlights

Hyenas
TBA

Though most famous for its work in the RTS realm with *Total War*, Creative Assembly now sets its sights on the hero shooter genre, with Anna handling UX on *Hyenas*.

Battlefield V
2018

DICE dipped its toe back into the WWII era with *Battlefield V*. Its multipronged campaign mode sees you venture from France, Norway, and Germany. Multiplayer presented its own challenges.

Star Wars Battlefront II
2017

Anna's first commercially released game saw her travel to a galaxy far, far away. With so much messaging being relayed to players online, the UX was crucial to get right.

AM 12:21
AUG. 08. 1998

Interactive / The Building 71 Incident

Brazilian student Bruno Pressanto explains how he made
a terrifying horror game on a shoestring budget

Y ou're prowling through the halls of an abandoned university, video recorder in hand. It's 1998, and you're meant to be investigating reports of strange activity in a building that was closed months earlier due to a gas leak. But as you poke around the empty classrooms and peer into dusty corners with your torch, it gradually becomes clear that there's something far scarier afoot than a leaking gas pipe…

These are just the few opening moments in *The Building 71 Incident*, a short, quietly disturbing found-footage horror game from Brazil. What's fascinating is how much it does with so little: there are no items to collect or puzzles to solve. You won't be left reeling from jump scares, or pursued by a masked killer. Instead, there's simply a slowly building sense of dread, heightened further by an industrial murmur of a soundtrack that gradually grows in volume the further you go.

Like so many indie projects, *The Building 71 Incident* is the product of its limitations. Created by 25-year-old Brazilian student Bruno Paese Pressanto, it was created in just two months as part of his bachelor's thesis. A student of Digital Creation at the University of Caxias do Sul, Pressanto set himself a challenge: could he make a satisfyingly scary horror game in just two months? "I had many constraints during the development process," Pressanto tells us. "One of them was that, unlike most horror games, mine couldn't have enemies that could pose a real threat to the player. Because of that, I had to make sure the game was presented in such a way that players would never feel completely safe and that, as it progressed, they would feel paranoid, expecting someone or something evil to appear at any moment."

Knowing that time was short, Pressanto planned his project carefully. He studied other low-budget horror games – such as *The Riverside Incident* and *Night Shift* – to see how they built up tension, and storyboarded every location and scary moment so that he knew precisely how the game would be structured. Only then did he turn to Unity and start building the experience itself. He didn't look too far afield for the location, either: Building 71 is modelled after the place of the same name on Pressanto's campus. "I did this so that I could test the influence of familiarity in the immersion of the experience," he says, "and compare it to players unfamiliar with the building."

∧ It's only brief at around 20 minutes, but *The Building 71 Incident* still has an uncanny way of getting under the player's skin.

〉 The story starts here, in a vintage car. This is the last time you'll get to sit down and relax.

AM 12:19 AUG 08 1998

▲ Developer Bruno Pressanto takes a train, no doubt thinking of new ways of terrifying his players.

◄ The VHS filter does a great job of selling the idea that you're interacting with a piece of found footage.

Pressanto's approach to development could be of use to anyone else thinking about making a narrative experience like this one – whether it's in the horror genre or not. He tells us that, of the two months he spent making the game, fully half of that time was spent on storyboarding and planning. As a result, actual development went "surprisingly smoothly," he says. "In the first month, I started working on the storyboard and, at the same time, I looked for sound effects that would fit the different stages of the game as I developed the narrative. After that, I started creating the main mechanics in Unity and, using placeholders for the environments, I laid down the basic structure of my game… For the second month, I took time off from work so that I could focus on developing the game full-time. At that point, I was already ahead of my own original schedule. There was no point where I had to rush or had any difficulty making progress."

The only doubt Pressanto had during development was a simple one: would players find it scary? Given he knew every plot beat and twist, it was almost impossible for him to tell. Fortunately, it became clear as he let others test the game and provide feedback that it was making a real impact on people. After scaring the hell out of his teacher and several students, Pressanto uploaded *The Building 71 Incident* to itch.io and then went to bed. "As soon as I woke up the next day, I quickly realised the overwhelming amount of traction the game was getting… as of today, the game stands at more than 34,000 downloads, which is basically 33,950 more than I was expecting."

The game then caught the attention of high-profile YouTuber Jacksepticeye, whose saucer-eyed playthrough was viewed by around 1.5 million people. "When I found out that Jacksepticeye played my game, I was dumbfounded. I used to watch him as a teenager, and now I was watching him play a game I made and that he found worth uploading to his channel so that millions of people could watch."

Pressanto's enjoyed the development process so much that his goal is to make horror games full-time. They won't necessarily continue that game's narrative, he says, but they'll have a similarly compact length and style. "It's the kind of horror that interests me the most," he explains, "so expect more short, atmospheric horror games in the future."

The genre's appeal, Pressanto tells us, is how creative indie horror games can be. "*The Building 71 Incident* was more of an experiment than a game: I wanted to show in practice what I'd already seen in theory, which is the possibility of creating a scary experience without the gigantic budgets and teams used in triple-A [games]… I still believe that the puzzles, action sequences, and other devices we often see in horror games are important, and triple-A games usually also bring elements of experimentation along with these tropes, but I'm also glad that there'll always be a portion of the market led by us indie devs in which the stakes are low enough that we can experiment and create more unique experiences." Ⓦ

> **"I quickly realised the overwhelming traction the game was getting"**

GET THE LOOK

The Building 71 Incident's VHS aesthetic has two handy functions: it helps disguise any low-resolution textures or blocky 3D models, and helps immerse the player in its found-footage atmosphere. Best of all, the look was achieved with an affordable plug-in. "I used an asset called Retro Look Pro, which came with a multitude of shaders, each simulating a specific technical aspect of the old-school VHS look," Pressanto explains. "All I had to do was tweak some settings to make it look exactly how I wanted. Since it was a considerably cheaper alternative to creating these effects from scratch and on my own – it would take me weeks to understand the technicalities of the look VHS tapes had and, even then, I wouldn't know how to begin creating them in Unity – purchasing the asset was an easy decision that fitted my budget."

Interactive / Astronite

Domènec Claret talks about creating a 1-bit adventure
inspired by Metroidvanias new and old for his console debut

Domènec Claret is a Spanish solo developer who's been on almost as big and bold a journey as the protagonist at the heart of his upcoming 1-bit Metroidvania. Having grown up dabbling with computers like the ZX Spectrum and MSX2 – where he enjoyed games like *The Maze of Galious* – his love of old tech, simple visuals, and Metroidvanias should come as no surprise. However, it was towards the end of 2019 when all these passions coalesced, where, with a little help from online tutorials and GameMaker, he started work on the monochrome intergalactic adventure now known as *Astronite*.

At least Claret isn't shy about the game's key influences. "Metroidvania games have always been my favourite," he says. "Games like *Metroid* and later *Castlevania: Symphony of the Night* on PlayStation have made a mark in my life in the world of video games, and are a clear inspiration."

It's not uncommon for such genre stalwarts to be referenced by modern developers, sure, but one of *Astronite*'s other chief inspirations seemingly indicates that we've reached a point where beloved indies are inspiring other indies. It's the uroboros effect come to fruition. "When I discovered *Gato Roboto*, I loved that 1-bit graphic aspect. It's a style that makes things much easier for me when I want to design graphics and animations."
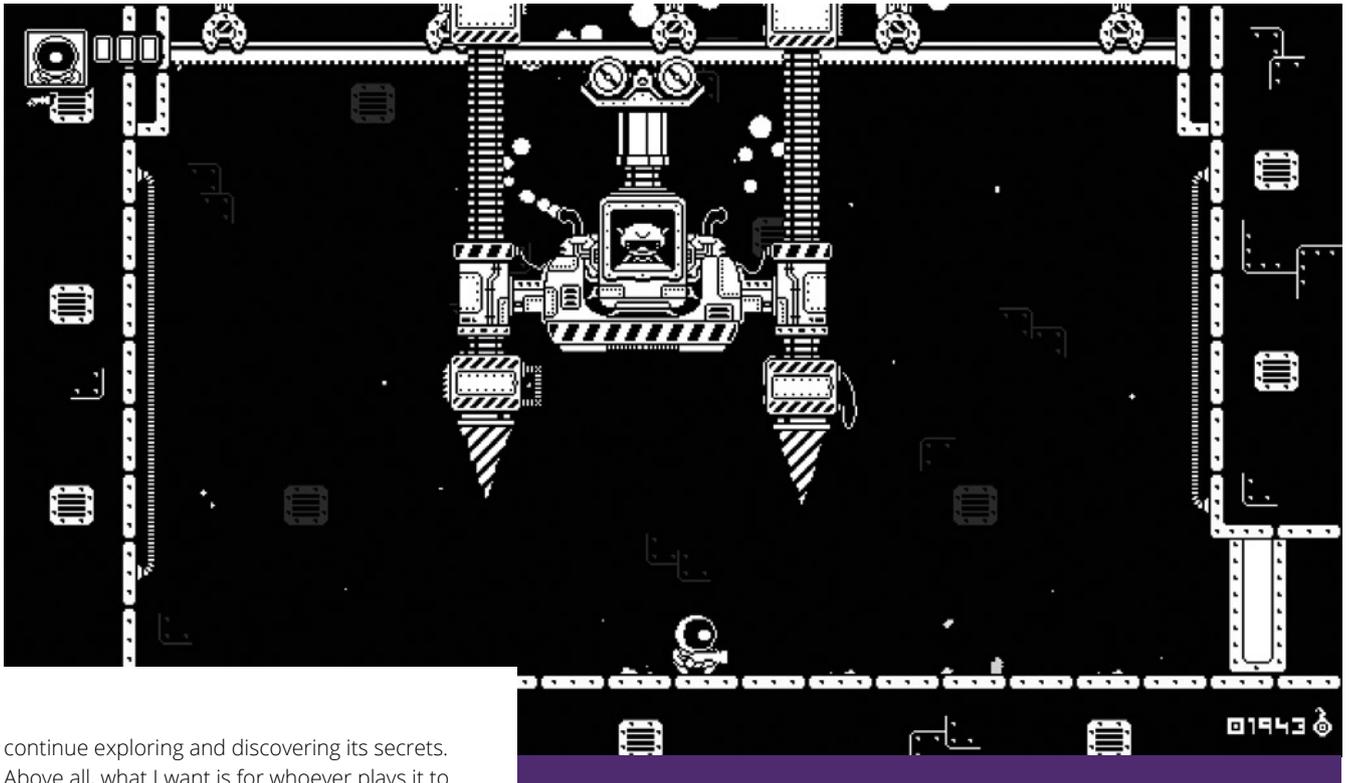
Much like how Doinksoft's 2019 modern classic saw its chibi hero explore a lo-fi black-and-white world in search of resources, *Astronite* pays affectionate homage to this style and concept while infusing the template with a handful of its own ideas. Set in the not-too-distant future, the game casts you as the titular space adventurer, forced to expel enemy invaders from the planet of Neplea while deciphering the riddle relevant to ridding an ancient evil from its core. Doing so will involve traversing no less than 15 distinct zones, fighting chunky bosses, and jetpacking your way around to solve puzzles and uncover mysteries.

In true Metroidvania fashion, *Astronite* begins with you in possession of your gun, dash, and jetpack before quickly having them taken away. This may be familiar ground, then, but Claret remains adamant on making the experience enjoyable for newcomers. "I'm not trying to make anything up," he says frankly. "I have simply tried to make a game that is fun [and] not very complicated, [using] mechanics that maintain a certain challenge but [that] make people want to

∧ Despite its 1-bit black-and-
white presentation, *Astronite*
sets an atmosphere for each
zone with small details
like rain.

⟩ Just because you're exploring
an extraterrestrial planet
doesn't mean they don't still
enjoy light festivals.

continue exploring and discovering its secrets. Above all, what I want is for whoever plays it to have as much fun as I have had creating it." That said, there's still plenty of Easter eggs sprinkled in that he hopes expert players will find. "I have put in references to other games that only veterans who play it will see."

BEYOND 1-BIT

Restricting the game's colour palette works wonders to lessen the workload for a one-person effort like *Astronite*. "This style has allowed me to create minimalist graphics that are detailed enough to show what I always wanted without losing that retro gaming feel," says Claret. Even still, going the 1-bit route isn't without its own challenges. Nowhere is this better felt than when creating the zones that make up the interconnected map. Just how do you convey the unique aesthetics of, say, ice caves with underwater areas, or the difference between metal and wooden structures? Turns out it's in the tiniest of details. "Each zone has enemies, traps, puzzles, and obstacles that only appear there," he says. "It also helps to insert [subtle] effects such as snow, rain, or particles floating in the air – even some small fauna such as bugs and also vegetation."

New skills are unlocked as players further dive into these lived-in areas. Rather than overload players with a countless number of power-ups

> **"Metroidvania games have always been my favourite"**

that would be tough to manage, though, the planet has been designed around the hero's weapon, dash, and jetpack they'll eventually claim back, which can be upgraded almost ad infinitum. "They can be found by exploring the planet, solving puzzles, or buying them from the store that the player finds shortly after starting the game," Claret explains. Doing so makes exploration and battles more efficient, while simultaneously giving players the option to implement their own difficulty. "You can finish the game without upgrading any of the main items. Although, obviously, it is more difficult to finish it without those improvements. I would love to see some speedruns of the game."

Despite preparing for launch this October, and following three years of hard work, Claret still thinks of himself as a novice and a hobbyist when it comes to game development. After all, *Astronite* marks his first console release following Android games *Ten* and *Sticker World*; the concept of getting to soon hold a boxed copy, he says, will feel quite surreal. "I am self-taught and everything I've learned is thanks to my experience as a player from the time of Spectrum until today," he sums up. "Not in my wildest dreams did I expect *Astronite* to be where it is." ⓦ

ECHOES OF THE PAST

Any good Metroidvania worth its salt features a map littered with hidden items and secrets to uncover. *Astronite* is thankfully no different, taking this concept of in-depth exploration one step further thanks to the inclusion of what's called Echo Gates. Said to contain challenges only available to the most intrepid of players, Claret is keeping their explicit nature a secret but teases that they're worth seeking out for those who are brave enough. "They are specific challenges based on classic games that have somehow left their mark on me," he says. "It's a tribute to some of the games that have made history. I'm not going to say more…"

GAME
Highwater

DEVELOPER
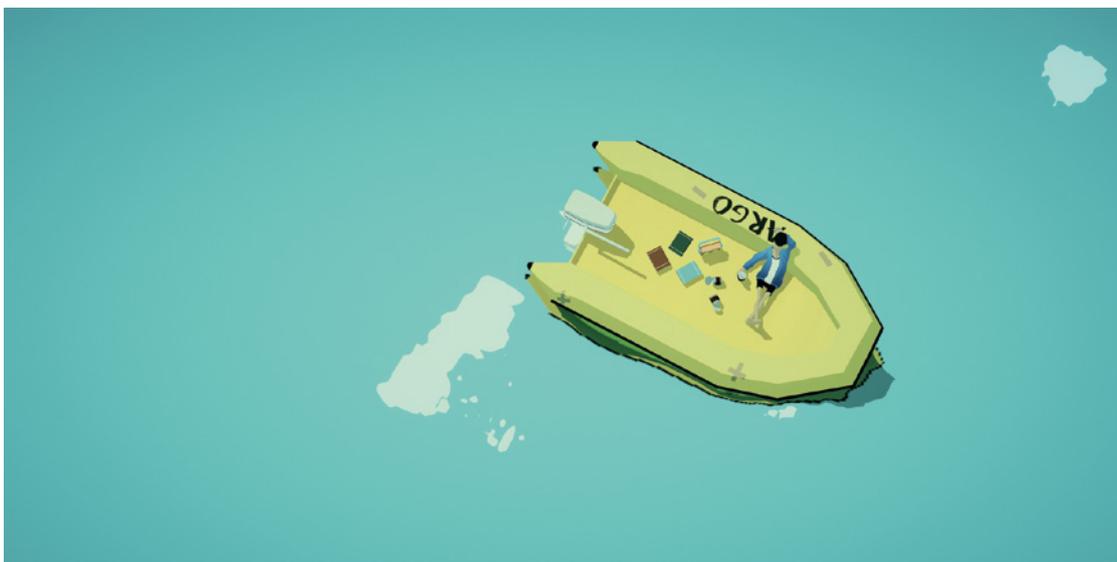Demagog Studio

RELEASE
December 2022

WEBSITE
demagogstudio.com

Highwater

Following the style of its previous games, Demagog Studio has chosen a pastel colour palette and minimalist art style to portray the surreal beauty of *Highwater*'s waterlogged world. Such an approach is most definitely a creative choice, but comes with other benefits for a relatively small team of 20 or so people. "It looks cute and slick, and keeps us under budget," jests creative director, Igor Simić. "In all seriousness, the bluish, simple shapes set a melancholy, foggy mood that is a good environment for our absurd journey." *Highwater* is a concerted effort to move away from what Simić dubs "apocalypse porn", and generates an atmosphere that is stunningly haunting to move through.

Rising like a phoenix

Star Fox co-creator and Q-Games founder Dylan Cuthbert discusses his 30-plus year career

We can't imagine there are many people on this Earth who Shigeru Miyamoto – the creator of Mario himself – would reach out to for advice. In the early 1990s, however, seeking a way to get a full 3D engine running on Nintendo's upcoming SNES hardware, 17-year-old Dylan Cuthbert was one of them. Cuthbert worked for a studio called Argonaut Software at the time, an outfit with a reputation for breaking hardware and getting it to do cool things, particularly in the 3D space. A chief example of this came via an early prototype for the Game Boy, which presented a rover driving around the moon's surface from a first-person perspective. This demo is what caught the attention of Nintendo during 1991's CES conference as a result of Argonaut CEO Jez San demonstrating a build to its representatives, all without Cuthbert knowing.

Years before the historic meeting between Nintendo and Argonaut Software that led to the creation of *Star Fox*, though, 3D gaming had already been a topic Cuthbert was obsessed with since his school days. "I was programming games at home as a hobby. I didn't actually release anything," he recalls. "Then, around sixth form, I asked the maths teacher if he could help because I was trying to work out a way to do 3D on the Amiga. I'd never done that before, and I wanted to try. He couldn't really answer me because he didn't have the applied knowledge. I was asking 'how do I get these points in from 2D into 3D onto the screen?'. At that point I thought, well, maybe I shouldn't continue this educational path if the teacher can't answer my questions. I should look around for companies that are strong in 3D because that's what I wanted to do."
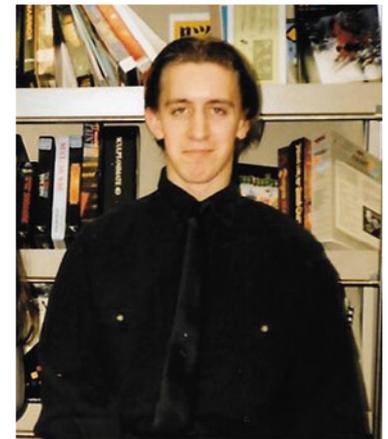

∨ Cuthbert and the rest of Argonaut owe some of *Star Fox*'s success to Miyamoto's visit to the torii gates in Kyoto.

∧ Miyamoto's idea of how flight should be handled didn't require the camera to rotate or whirl, and Cuthbert was happy to oblige.

▲ **Dylan Cuthbert as a teen, shortly after joining Argonaut Software in Colindale, London.**

Cuthbert applied at Argonaut Software in London soon after, initially being rejected until he took the initiative to complete his 3D Amiga demo and send it in on the off-chance they'd still be hiring. "I just made this little renderer type thing," he explains "Then Jez San called me the next day and said, 'OK, we've got a job for you next week, if you want to come in.'" Cuthbert's first challenge as an employee was to create a 3D renderer for the Konix Multisystem, a British-made 16-bit console that would be unceremoniously cancelled. "We were trying to use its DSP sound chip to rasterise the polygons, and we got it all working and had some good demos running, but then they pulled the plug on it. They didn't release the console; they just ran out of money or something."

Fortunately, Konix's loss would later turn out to be Nintendo's gain, once Cuthbert and a select few others from Argonaut came face to face with Miyamoto and roughly 30 other staff members. It turns out Japanese developers during this period weren't very knowledgeable in making 3D games, with most instead choosing to hone their craft in creating 2D worlds. The team at Argonaut Software had heard of games like *Mario Bros.* and *The Legend of Zelda*, of course, but looked over from across the pond and didn't think the NES to be as capable a machine as the Amiga.

"We knew of them, we knew they were this big gaming company, but we didn't have much experience of them," Cuthbert says in reference to Nintendo. It was during this initial meeting that Miyamoto brought out a rudimentary version of *Pilot Wings*, trying to create a 3D flying game using a DSP to perform the maths required for a lot of the rotation. This chip, it turns out, wasn't too dissimilar to the one Cuthbert had been working with for the ill-fated Konix Multisystem. "Miyamoto said [that] what they found really hard with the plane itself in *Pilot Wings* was they had to draw the frames of the rotation," he recalls. "They couldn't do that because there was no 3D rendering." Nintendo needed help not having to draw individual frames for the aircraft.

San quickly got on the phone to one of his old contacts at Konix, who had just recently been made redundant so was ➡

> **"Jez San called the next day and said, 'OK, we've got a job for you'"**

⌃ Following the establishment of Q-Games, collaborations with Nintendo continued on projects like *Star Fox Command*.

Long-awaited Star Fox sequel

Star Fox 2 may have been completed in 1995, but it wouldn't see an official release until it launched alongside the Super NES Classic Edition in 2017. "I was just really happy about it," says Cuthbert on finally seeing his hard work feature as the micro-console's headline game. "It had been just sitting there for so long, and it seemed like just a big shame to me to have a game like that. A little bit like *The Tomorrow Children*… just sitting there when it could be out there and it's not. That's kind of frustrating."

more than happy to help develop what would eventually become known as the Super FX chip. Nintendo wasn't going to let Argonaut Software off that easily, however, convincing the team to start work making 3D games for the SNES. One of these was a demo called *SNES Glider*, which according to Cuthbert was a "cut-down, very simple 3D fly-around shooting kind of game" that included the same ideas as the forthcoming *Star Fox* project. The technology was almost there by this point, but where this odd mix of creatives still struggled was in finding the actual fun in the gameplay.

This was still the case at the beginning of 1992, when Cuthbert and three of his fellow Argonaut programmers returned to Kyoto following Christmas. "We spent a month trying out ideas and stuff at the offices at Nintendo," he remembers. "For maybe about three weeks we were there, just embedded in working with Miyamoto and a few of the other producers. Miyamoto never seemed quite happy – none of us were really – with the game side of it. We couldn't quite work out [how] to make it into a game that would

be original. It had to be like a Nintendo game rather than a British-made Amiga game, which, you know, we were coming from that background."

Thank Mario's moustache, then, that Miyamoto's January trip to celebrate Hatsumode (the New Year tradition of visiting ancient Japanese shrines) could provide the much-needed inspiration.

At the temple he'd visited, there were orange torii gates that he thought would work well in terms of guiding the player to the objective, and all without the need to include camera rotation. "Within a couple of weeks, we've got that in the system going in our engine and that cemented the deal," recalls Cuthbert.

"From there until the end of the year, that was when *Star Fox* was made. We were very young. So we just invented stuff all the time. I was playing around with jointed systems. I said, 'Well, how about we use this for a boss or something', and then that's where like King Dodora, the double-headed chicken boss came out. Just from playing around." In the end, the entire game would take just eleven months to develop. "The speed of

> ## "We spent a month trying out ideas at the offices at Nintendo"

^ One of the biggest additions in *Phoenix Edition* are monoliths, which when discovered can be touched to further expand towns and locations.

^ Though it has origins in early PS3 tech, the *PixelJunk* series has remained strong to this day, expanding to new platforms like Nintendo Switch, Stadia, and PC.

progress was really fast, but that wasn't because we were rushed. It's more we had no distractions at all. There's no social media, there's no internet. We sometimes got distracted when Miyamoto came in and started smoking behind us. But apart from that... He stopped smoking after *Star Fox 1*."

So impressed with the 3D tech implementation on SNES was Nintendo, it immediately commissioned Cuthbert (who had by now moved to Kyoto) and the team to work on a sequel. *Star Fox 2* wasn't perceived to be as technologically ground-breaking as its predecessor by the time it was nearing completion in 1995, however, forcing Cuthbert as lead programmer to shelve the project in favour of a new *Star Fox* title that would dazzle on the forthcoming Nintendo 64. "The exact reason Miyamoto gave was that he didn't want to release anything before the Nintendo 64 that might lower expectations of what [that console] could be. So any kind of 3D game on the Super Nintendo he wanted to stop," he reveals. "There was even a prototype for *Pilot Wings*. I don't know how far that went, but I remember seeing it and that was all in 3D. They'd actually got that running on the FX chip as well."

Despite *Star Fox 2* being abruptly set aside, Cuthbert would remain involved in the series right up until 2011. He'd work on the Nintendo DS's *Star Fox Command* as director and even help co-develop the reimagining of the *Star Fox 64* remake that launched on the 3DS. The major difference this time being that he wouldn't do so as part of Argonaut Software, or Nintendo EAD for that matter, but rather his own company Q-Games, which he set up in 2001 after a six-year stint working with Sony at PlayStation (first on third-person shooter *Blasto* and then new technologies).

"From a very young age, I just simply wanted to make my own game studio," Cuthbert explains. "Back when I was 13 or 14, I'd be designing logos and stuff all the time for what this label would be. And back then, I chose something silly, 'Unique Publishing' or something like that. It was just a step I was aiming for from a very young age." After realising his childhood dream and settling on the name Q-Games, it only made sense for Cuthbert's new studio to maintain a strong relationship with the bigwigs at Sony. Recognising increasing development periods, though, Q-Games started work targeting a release intended for the PlayStation 3.

This is when Cuthbert continued his foray into innovation, no longer in just 3D (which by now was commonplace), but specifically in world-building tech. For the first year or so, Q-Games experimented with a title that would see landscapes like hills, foliage, and valleys auto-generate, alongside an emulated weather system that would see hurricanes and temperatures adapt in real time. Cuthbert would later revisit some of these ideas for *The Tomorrow Children*'s original 2016 version. He'd even demo the concept to Microsoft. "They said they didn't want it, so we had to change course." Even still, from these ashes the concept of having multiple games set in the same universe but with different genres came to light, and the *PixelJunk* series was born.

Making a PS3-exclusive series of smaller titles helped keep the studio ➡

^ When working on the first *Star Fox*, Cuthbert would accompany Nintendo staff on frequent Japanese traditions like Gion Matsuri, seen here in 1991.

Fan-fuelled

The Tomorrow Children: Phoenix Edition shares a lot more in common with how Q-Games originally envisioned the game, being a paid-for game free of microtransactions. Cuthbert is adamant it wouldn't exist were it not for the fans who've kept its flame alive. "After the game was cancelled in 2017, what we noticed, and I've never had this on any other game I've ever made, is that every single day we had fans from all over the world still posting screenshots," he says. "Even on a popular game like *Star Fox* I wouldn't see this happen. That carried on and on over the years."

⌄ ***Star Fox* was only the second ever 3D game Nintendo put out. The first being *X* in 1992, a refined version of Cuthbert's original Game Boy demo.**

nimble. Plus, it had already proved its knack for the console by designing such built-in features as the XMB (cross-media bar), the console's dynamic music backgrounds, and even an Earth visualiser that could pull real-time data from Google. The latter, admittedly, would launch in an offline state for fear of displeasing the search engine giant. "We kind of worked out what Google Maps was doing, and we hacked the URLs and made it into our thing that could also cache the real data from the Earth," says Cuthbert. "They thought we were hacking them, so we'd lose all access to Google for a whole day, and we thought, 'Oh, maybe we should stop doing this'."

From 2007 onwards, Q-Games released a string of indie hits in *PixelJunk Racers*, *PixelJunk Monsters*, and *PixelJunk SideScroller*, all the way up to *PixelJunk 4AM* in 2012 – all exclusively for PlayStation systems. The studio did this while also maintaining a unique relationship with Cuthbert's old haunt, Nintendo, again with smaller-scale titles as part of DSiWare.

It was around this time that the germ for the idea that would become *The Tomorrow Children* was being worked on. Originally announced during Sony's 2014 Gamescom press conference, the game's "*Minecraft*-meets-post-apocalyptic Soviet Union setting" immediately had people intrigued, but it failed to communicate with players how the task of building, community, and progressing would work and connect together in practice.

This lack of clarity wasn't helped by a decision from Sony to have *The Tomorrow Children* go free-to-play late into development. That said, Cuthbert was initially open to the idea, if only because it was another chance to try something he had never done before. "The whole free-to-play side of things kind of restricted what we could do," he explains. "Legally as well. For example, if I wanted to increase Freeman dollars [and] have more of them lying around that you could pick up like drops... no, the legal limit is you can only

▲ **Jez San (left) was the CEO of Argonaut Software, and instrumental in securing the chips to aid** *Star Fox* **development.**

drop three a day or something like that. Then we'd have to balance the game."

The Tomorrow Children ceased operation just eleven months after it launched, with Sony citing its inability to keep the servers online via monetisation due to the lack of in-game player spending. Despite this, Cuthbert recognised the potential in his initial vision for a game centred on community, where multiple players can work together to develop islands using resources and teamwork. The large amount of art and fan letters in the years he's received since would indicate that players recognised this potential too. And thus began the tough job of negotiating *The Tomorrow Children*'s IP away from Sony and over to Q-Games – a feat almost unheard of. So how did they manage to do it?

"Greg Rice joined Sony from Double Fine and I've always been a good friend of Greg's," Cuthbert reveals. "I got him to start pushing and initially that was rejected, but I just kept pushing and I said, 'Look, it's not worth anything to anybody at Sony, especially now Japan Studio isn't there'... Eventually we got to the point where we [reached] a

> ## "We worked out what Google Maps was doing and hacked the URLs"

mutually acceptable kind of thing. So I got the whole IP... The whole thing just shifted over to us. The logo, trademarks, and everything."

Since acquiring the rights to the IP back in November 2021, Q-Games has been hard at work overhauling *The Tomorrow Children* to be a paid-for experience incapable of suffering the same fate again. Online play is encouraged, but enjoying it offline as a solo player is now also viable. This merely represents the tip of the iceberg regarding the number of changes the newly dubbed *Phoenix Edition* makes, and Cuthbert admits it's been a long but worthwhile journey getting here.

"Our core fan base is growing larger and larger every day and we've not released the game," he says. "This is a first for me, at least: to have this amount of people who will buy the game is exciting."

As for how the game itself has expanded? "Before, you'd do a small tutorial and then it would throw you into an existing server, which would be chaos. We've managed to expand the whole tutorial and onboarding side because now you have your town. The first two or three hours of the game are just vastly

improved compared to what it used to be like. We've added AI as well. So now as you run around, the AI will come in and repair buildings for you and shoot at the monsters or connect resources."

Q-Games intends to support *The Tomorrow Children: Phoenix Edition* with updates that will further expand how players interact with their town and world. After that, Cuthbert teases, "there's a few other games in the pipeline we've got right now. We've got two games that are almost complete, which we haven't announced yet. So look out for those." Regardless of where the studio goes next, much like *The Tomorrow Children*'s new subtitle suggests, Cuthbert's need to embrace new technology is reborn; it's as fervent now as it was when he first helped Miyamoto create *Star Fox* as a fresh-faced teen. Ⓦ

Austerity gaming

STEVE MCNEIL

Steve is basically
Martin Lewis for
gamers now.

> "An Xbox One can be yours for around £90, with controller and cables thrown in"

In recent months, we've all felt the pinch on our wallets. Having pondered in previous articles the value of subscription services and retro hardware, and given the scarcity of latest-gen consoles plus the overwhelming volume of current remakes, remasters, and sequels, I thought it might be helpful to consider another approach to maximising your gaming dollar (or pound, or euro) purchasing power.

As many of you may be considering the leap to the next generation, may I humbly recommend you consider taking a look at what the previous generation has to offer at your local second-hand games dealer? If you've missed out on Microsoft in recent years, an Xbox One can be yours for around £90, with a controller and essential cables thrown in. Another £50 on games will bag you *Halo: The Master Chief Collection*, *Forza Horizon 4*, *Gears of War: Ultimate Edition* and *Gears 5*, *Ori and the Will of the Wisps*, *Sunset Overdrive*, and *Sea of Thieves*. Not bad for £140.

If you've never owned a Sony console, a PS4 can currently be yours for the slightly higher price of £150. But, without going over £200, you can keep yourself busy for months with *Ratchet & Clank*, *Uncharted 4*, *Horizon Zero Dawn*,

If you want to build up a library of games on a budget, the Wii U is a fantastic place to start.

God of War, *Gran Turismo Sport*, *The Last of Us Remastered*, and *The Last Guardian*.

Possibly the most exciting prospect, though, is the Wii U!

No, wait, hear me out. Nintendo inarguably offers a very different gaming experience to what you get on any other platform, and the Wii U can also play original Wii discs, essentially giving you two consoles for the price of one. But, more importantly, a huge portion of the Switch's exclusives are just 'deluxe' versions of Wii U games with a few new bits thrown in.

A Wii U, with the gamepad and other essential bits, will set you back around £70. For under £100, you can start yourself off with *Super Mario 3D World*, *Mario Kart 8*, *Super Smash Bros.*, and *Splatoon*. If we limit ourselves to £50 on games again, you can add *Zelda: Breath of the Wild* in there too (many forget the highest-rated Switch game is also on Wii U). If you've got another £40 to spare, you can add *Super Mario Maker*, *Donkey Kong Country: Tropical Freeze*, *Pikmin 3*, *Captain Toad: Treasure Tracker*, and *Bayonetta 2* to your library and, without going over £200, you can start your Wii collection with a Wiimote and Wii Nunchuk, *Wii Sports*, and *Super Mario Galaxy*.
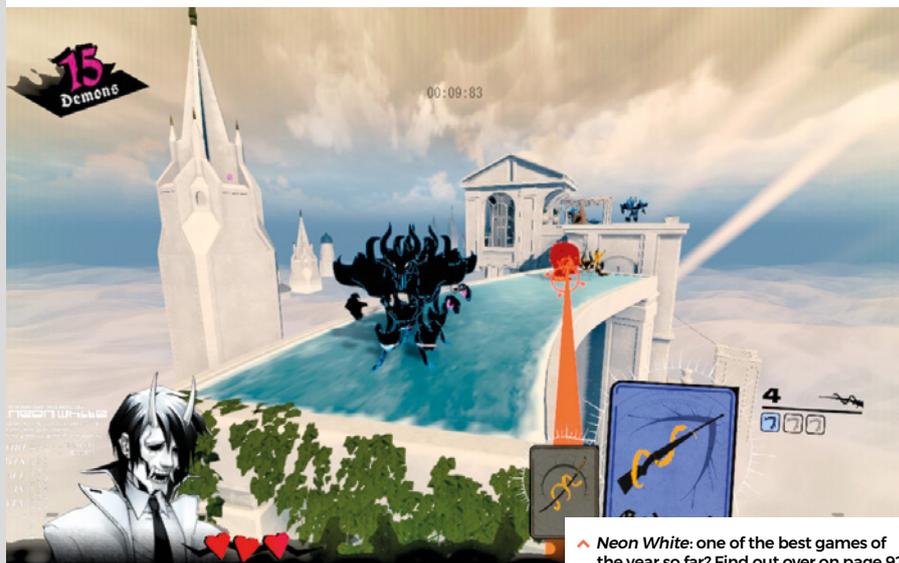
In short, whichever brand you currently have an allegiance to, you can give both competitors a try for less than the cost of a PS5 Digital Edition, and with a heck of a lot more games thrown in. The next generation will still be there when you're finished and, hopefully by then, a lot cheaper... W

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Reviews, retro games, and lots more besides

OUR SCORES

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A truly bad game, though not necessarily utterly broken.

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Still awful, but at a push could be fun for two minutes.

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Might have a redeeming feature, but otherwise very poor.

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Brilliant. Fabulous fun. Everyone should at least try it.

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Cutting edge, original, unique, and/ or pushes the medium forward.

100
Never say never, eh?

⌃ *Neon White*: one of the best games of the year so far? Find out over on page 92.

PLUS

⌃ An interactive space odyssey for the ages. Aaron revisits *Deliver Us The Moon* on page 110.

00:09:83

Review

Neon White

The fastest way to Heaven

REVIEWED BY
Alan Wen

⌃ Although demons rarely pose a danger, these ones with laser sights can one-shot you.

⌄ *Neon White* leans fully into its anime inspirations, including all the thirst.

Neon White
Heh, what are you stalking me now? Didn't realize I was so irresistible to you.

I f speedrunning is the purest expression of gaming skill, then games designed with speedrunning in mind are the path to enlightenment. *Neon White* goes further than that. For players who marvel at speedrunners but feel hopelessly incompetent, or even those who can't see the point (let alone joy) of being able to exploit a glitch that shaves off milliseconds from a run, then this is the best game to introduce you to its highs. It may even get you hooked in the process.

It's also a leftfield proposition from Annapurna Interactive, usually better known for games driven by narrative rather than skill-based mechanics with levels and leaderboards. Out goes developer Ben Esposito's previously wholesome, pastel-coloured vibes from *Donut County* and in comes a game made for the freaks, the outsiders. That might sound like the kind of edgy marketing for mature shooters from the early noughties,
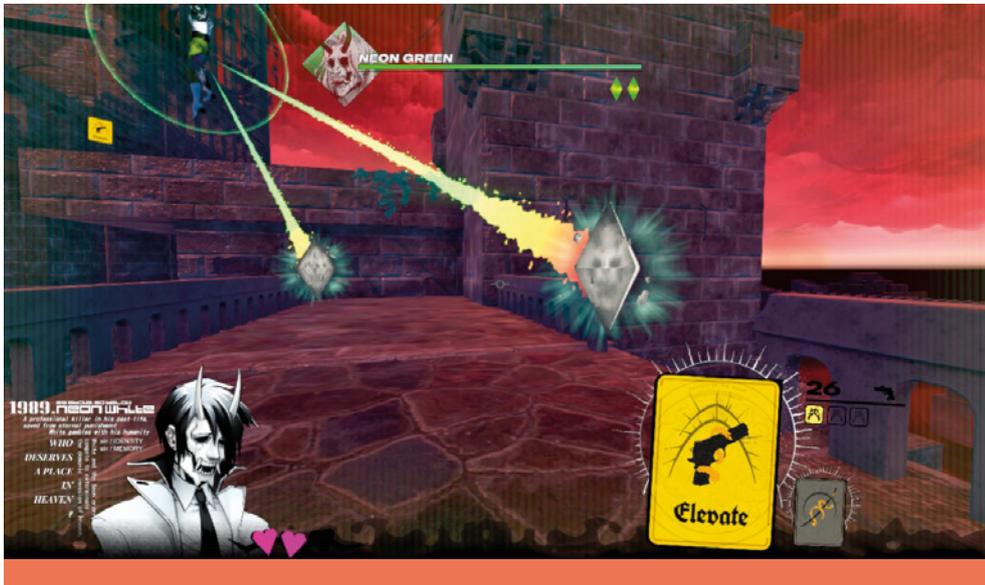
and if you swap out gore for horny anime, you're sort of on the right track.

But while this is a first-person game that involves shooting, an FPS it is not. Nor is it a slow-paced deckbuilder, as the cards representing your weapon might have you assume at first glance. *Neon White* is first and foremost about movement, and for those using a controller, it wisely maps the jump to the left trigger so that you can keep your right thumb on the stick for very important quick turns and aims. Shooting is still there, with your job as the titular masked assassin being to eradicate demons from Heaven in each level while reaching the goal as fast as possible. However, you soon discover that it's the cards' secondary functions that really drive the game.

Each card may represent a gun, like a pistol, Uzi, shotgun, or even rocket launcher, but if you're standing around to line up a shot, you're playing *Neon White* wrong. Each card also contains a skill, though activating it also loses the card, while you can only hold three of the same card at any time. For instance, the yellow card's skill activates a jump, great for executing a double-jump to reach a high platform. Other cards also have their own movement-based skills but can also be used to defeat demons, such as the purple card that plants a bomb, the explosion from which you can use to propel to higher ground; or the blue card that lets you air-dash forward, eviscerating demons or sturdy red doors in your way. Sure,

❮ There are a few boss fights, but again these are still focused on moving fast rather than an actual fight.

demons need to be defeated in order to open the goal at the end, but you're constantly driving forward, and they're often placed in such a way as to keep you in flow – like a row of enemies in a 3D Sonic game you attack in order to get from A to B, only more elegantly executed.

Once you reach the goal, you'll already want to try again, not just because these missions are often very quick anyway, but because you know you can do better. You're thinking about that corner you could've turned tighter on or how jumping just a bit too early was slower than just coasting along the watery path. They're all tiny increments that can overtake your ghost and push your time up from Silver to Gold, and soon enough, you won't be settling for Gold but chasing that elusive Ace. In trying to make speedrunning more accessible, however, the game also drops a clue to shortcuts that will shave off the precious seconds you need, suddenly transforming your approach.

It's not so much 'git gud' as you'll just automatically want to keep improving when the game is generously giving you the tools to do so. In my case, despite the campaign being split into chapters so that you're supposed to achieve a specific Neon rank before you can unlock the next chapter, I would already be 10 to 20 ranks ahead of the requirement.

That said, for those too overwhelmed by the constantly breakneck approach, there are ways to take it slow as you can also replay levels to hunt down a hidden gift, which requires some more

"Once you reach the goal, you'll already want to try again"

ingenious use of your skill cards to reach. These can then be given to fellow Neon assassins in between missions to build up your relationships, but more importantly to unlock more challenging missions, including some demanding precision to survive traps, making it feel like you're racing through a *Super Meat Boy* level in 3D.

Then there's the story, which doesn't try to be anything more than a straight-up pastiche of late-night anime with a touch of Suda51 aesthetics with its masked misfits, though the voice cast understands the assignment well, including a highlight from YouTuber SungWon Cho doing his best Italian-American gangster accent as an angel who looks like a cat, as you do. It's entertaining enough for people who can vibe with the obvious tropes, but there's tellingly a skip button in the corner. After all, you're not really here for the story of a himbo assassin's redemption or a conspiracy in Heaven, you're a freak off its leash chasing the next high of your next record. And what a rush it is. ⓦ
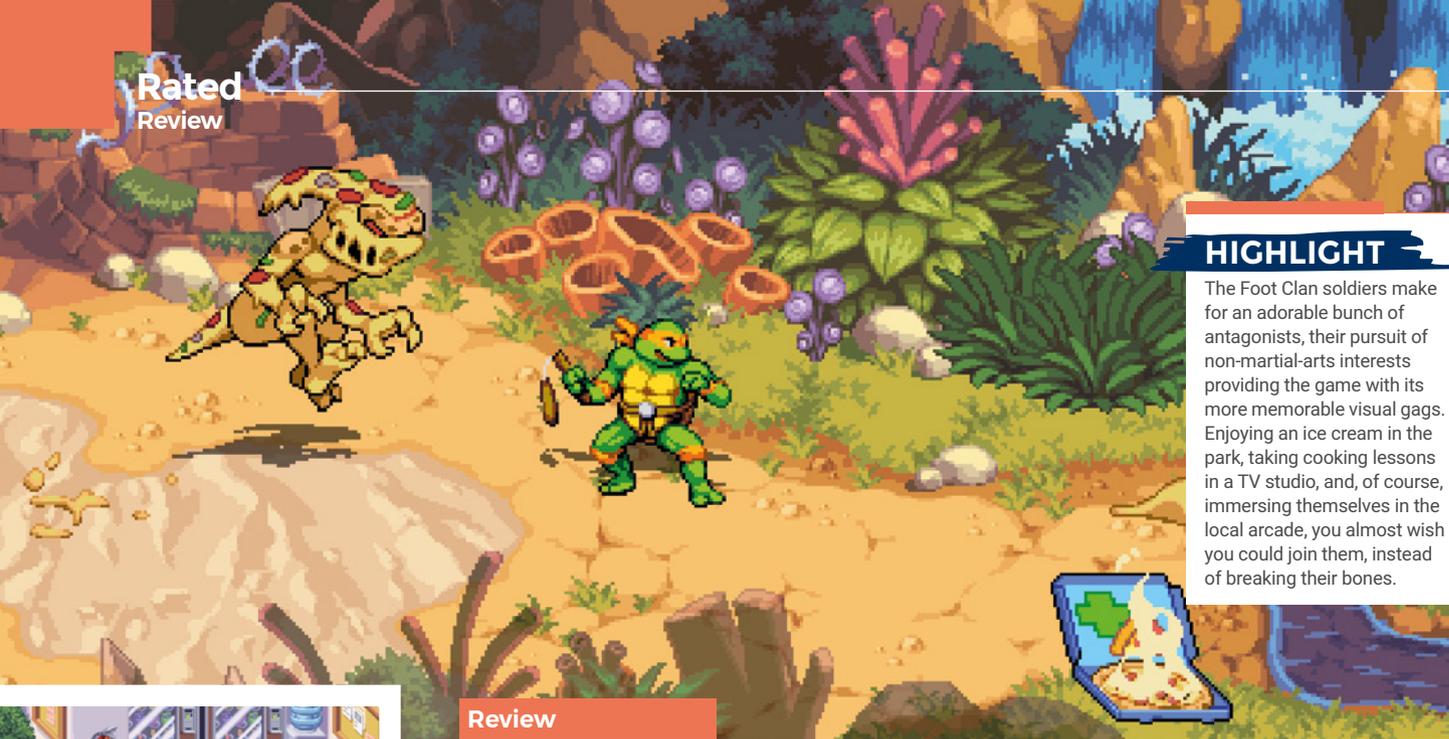

HIGHLIGHT

As fun as it is to unlock hints to shortcuts on subsequent runs, it feels even more satisfying playing missions in the latter half when without exploits or knowledge of the time requirement. Your sheer reactions to everything you've learned so far makes it entirely possible to get the Ace on the first try, or as White sometimes quips, "No-scoped it".

VERDICT

Simply divine! No other game will have you as obsessed with chasing perfection quite like *Neon White*.
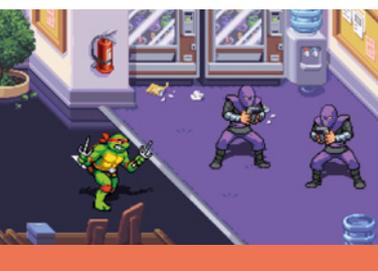
90%

Review

Teenage Mutant Ninja Turtles: Shredder's Revenge

Crude but cool

Info

GENRE
Beat-'em-up

FORMAT
PC (tested) / PS4 /
XBO / Switch

DEVELOPER
Tribute Games

PUBLISHER
Dotemu

PRICE
£22.49

RELEASE
Out now

REVIEWED BY
Alexander Chatziioannou

VERDICT

An enjoyable nostalgia trip that, cosmetic details aside, does little to update its 30-year-old template.

68%

What's the purpose of a beat-'em-up outside of the arcade? It's an existential question the once-dominant genre has evaded for the last three decades. Whereas other relics of the eighties saw their templates evolve to accommodate modern tastes (such as the numerous twin-stick shooters inspired by *Robotron: 2084*), most contemporary 2D brawlers are not fundamentally different from *Double Dragon*. This often presents a challenge on how to best judge them.

Shredder's Revenge peddles the same kind of nostalgia that prompted the resurrection of the *Streets of Rage* and *River City* franchises two years ago, but does so even more unashamedly. A two-hour riot of colourful backdrops, fluidly animated violence, and constant callbacks to the broader genre's history (from the stampeding herds of *Sunset Riders* to the second-person boss fight from *Battletoads*), Tribute's side-scroller feels less like a proper sequel to its obvious predecessor, *Turtles in Time*, and more like an alternate version of the 1991 coin-op that's just been unearthed.

Of course, the pixel art has been updated to a crisper look that still sumptuously captures that Saturday-morning-cartoon vibe. An overload of scenic detail catches your eye at every frame and the Foot Clan's shenanigans add a dash of humour to a selection of arenas that largely remixes its predecessor's themes (the construction site, the seedy alley, the jungle). The soundtrack is similarly updated with the likes of Ghostface Killah and Mike Patton contributing to a collection of catchy tunes and voice actors from the original cartoon reprising their roles.

Untroubled fun seems to be the underlying principle in *Shredder's Revenge* and the game, consequently, looks, sounds, and plays pleasantly, refusing to make demands other than furious button mashing. Attacks smoothly segue into satisfying combos, enemies are juggled, launched against their buddies, or thrown face-first toward the screen, and the game keeps you at a paradoxical state of low-effort flow that remains unbroken – even when a familiar nemesis pops up for a boss fight.

While the highest difficulty ('Gnarly') will test you more firmly, especially if playing solo, *Shredder's Revenge* hardly pushes you to explore the intricacies of its combat system. The threadbare RPG-style progression allows no meaningful choices and the scant secrets within each level will be revealed in your first or second pass. With no last-coin anxiety in the comfort of your own home, the contemporary brawler's emphasis has naturally shifted from survival to performance. But lacking either the challenge or another incentive to hone your skills (for example, a sophisticated scoring system) means that this otherwise impeccably crafted nostalgia trip will delight you once, then swiftly join its predecessor as yet another fond memory. Ⓦ

Time on Frog Island

Going for croak in a ribbiting island paradise

My time on Frog Island was full of surprises. But then I didn't expect much when I washed up, shipwrecked on its shores with only a sleeping bag and a potted plant for company.

The first thing to mention: there are literally no words. The cast of amphibians only communicate with grunts and pictures in speech bubbles. This bothered me at first, as some images didn't make a lot of sense. "What's this little spiky crystal thing?" I found myself asking.

After spending some time exploring, however, things started to click. I went in expecting *Time on Frog Island* to be an indie take on *Animal Crossing*, but *New Horizons* it is not. In reality, it's a journey of exploration, trading, and finding uses for the many objects scattered around a surprisingly large world.

You first come across an artist, complete with beret, creating a painting of the ship's wreckage on your torn sail. If you're going to repair your vessel and get back to your journey, you're going to need that back. The artist isn't going to just hand it over to you, though, so the frog instead proposes a trade. An image of their desired item pops up, and off you go to track it down.

You spend a lot of time on Frog Island completing tasks like these. The pub landlord needs something from the snowy peak of a mountain to create a cold brew. Fortunately, said brew also gives you super speed should you choose to drink it.

Experimenting with different concoctions like this can give you other benefits, too, not

Objects, locations, and even feelings are indicated by pictures, with question and exclamation marks for added clarity.

dissimilarly to *The Legend of Zelda: Breath of the Wild*'s cooking system.

Another frog might want a flower that only blossoms in one place when it's raining, while another may have an item you need, but will refuse to give it to you unless you hunt down a clam containing a pearl. I would have gladly done this, had a bug not prevented her from asking me for a different item every time I brought her what she asked for. It became a vicious circle, but luckily these instances are few. A good thing too, as every item you pick up has many potential uses beyond its initial trade value.

Time on Frog Island's colourful setting provides all kinds of other secrets to uncover, including a mysterious set of glowing ruins. There's much more to this game than a single page could ever cover, too, but one thing's for sure: by the time I saw *Time on Frog Island*'s first ending, I had a real appreciation for Half Past Yellow's charming island adventure, and dived right back in to dig further into the mysteries it has to offer. ⓦ

HIGHLIGHT

You make friends with the carpenter frog early on, who needs help to track down his missing tools. He can use these to help fix your wrecked boat, rebuild a broken bridge to open up a new section of the island, and even build you a house if you fancy sticking around.

REVIEWED BY
Andrew J. Dickinson

VERDICT

An intriguing concept that rewards exploration and experimentation. This island is worth your time.

71%

Through the window you see a black Cadillac by the pump...

Review

Mothmen 1966

If you go down to the woods today, you're in for a beast surprise

Info

GENRE
Visual novel

FORMAT
PC (tested) / Switch / PS4 / PS5 / XB X/S / XBO

DEVELOPER
LCB Game Studio

PUBLISHER
Chorus Worldwide

PRICE
£6.79

RELEASE
Out now

SOCIAL
@lcbgamestudio

REVIEWED BY
Lewis Packwood

VERDICT

Beautiful pixel art and an enjoyable story, let down by short length and limited interactivity.

70%

It's amazing what you can do with nine colours. LCB Game Studio deliberately limited the colour palette it used when creating *Mothmen 1966*, and the results are incredibly striking. Every screen presents a new piece of gorgeous pixel art crafted from a handful of shades, evoking classic 1980s DOS games or the golden age of the ZX Spectrum. It's a calculated move to hit you right in the nostalgia glands – and it works, acting as a reminder that some of the most memorable and unique pieces of art are produced under the strictest of constraints.

Here, there's also a practical reason for those constraints. Novelist Nico Saraintaris and illustrator Fernando Martínez Ruppel – who make up the Buenos Aires-based studio LCB – have come up with the concept of Pixel Pulps, short narrative games that embrace the ethos of pulp fiction. Like the paperback books, they're designed to be exciting, pacey, and able to be quickly produced. Embracing pixel art is a means to an end, a way to churn out games at a blistering pace thanks to their simple graphics: LCB plans to ship three Pixel Pulps in the first year.

The tale of *Mothmen 1966* is pure pulp, a schlocky sci-fi episode set in the backwoods of America, where the 1966 Leonid meteor shower has unleashed uncanny forces. You begin by following the story of Holt, a lonely gas-station employee who receives a startling visit from some mysterious men in black. Later, you switch to following a young couple who are battling through relationship problems, and later still a paranormal investigator is introduced, a sort of Mulder of the woods. It's all very *X-Files*, a show that the creators say was a key influence, along with Hideo Kojima's rarely played 1988 game *Snatcher*. As in Kojima's early work, you're often presented with starkly beautiful and sometimes shocking images, accompanied by dramatic writing.

The game itself plays like a visual novel, although visual short story would probably be more appropriate, since you can easily finish the whole thing in a couple of hours. Occasionally the dialogue is interspersed with a handful of simple minigames, like a variation on solitaire, but mostly it's a case of clicking through text. Sometimes you'll be offered a choice of what to do next, but there's no branching narrative here. Choosing the wrong path results in death and a reset to where you left off, making decisions a simple case of trial and error.

The team at LCB have said they wanted to avoid multiple endings because the denouement of the game ties in with forthcoming Pixel Pulps, but the lack of divergent paths somewhat limits the replay value. It's a shame, because the writing is generally gripping, and the story is a fun ride that goes to some weird, even ludicrous places. The final coda in particular made me smile. But I can't help but think that the game's slight run time and overall lack of interactive options is to its detriment. The pixel aesthetic is glorious, but there is little meat on these pixelly bones. I wonder whether it would have been better to combine the three planned Pixel Pulps into a more substantial adventure with more paths to choose. As it is, *Mothmen 1966* is a fun one-and-done. ⓦ

6 | 5

Review

Fobia – St. Dinfna Hotel

Residence of evil

Welcome to the St. Dinfna Hotel, Mr Leite – we hope you enjoy your stay. You may find your experience here a little familiar if you're a fan of other, higher-budgeted creepy establishments, yet nevertheless there's a small slither of value to glean from carefully exploring these dank and dreary halls. We've had plenty of investigative journalists visit us throughout the years. Could you be the first to make it out alive? That entirely depends on your ability to solve all kinds of logic puzzles and mysteries. Alas, not to worry, there's a handful of tools we've set aside to help you.

Many have deemed the most useful one to be this humble camera. Because while it works well to illuminate the way whenever the hotel experiences a power cut – which tends to happen often, I'm afraid – the picture-taking device is also good at exposing hidden passageways; some say it offers views into a different time period. Admittedly, these routes aren't as secret as the manager thinks, but we hope you'll agree it makes getting around much more unsettling than it otherwise would be – if that's your sort of thing. Plus, other puzzles aren't so obvious, requiring you to match codes to key cards, place paintings in the correct order, and pay close attention to important dates.

Unfortunately, many of our guests find combat to be less enthralling. Part of this is due to the supernatural infestation we're currently enduring where monster variety is rather lacking.

Any scariness they do hold early on quickly dissipates, so we're told, with only bosses posing any real sort of challenge or frights. After you find any of the weapons we've scattered around each of the hotel floors, it simply boils down to steadying your aim and shooting the glowy bit. In this area we've opted for ease over innovation.

We'll admit that your time with us is likely to share a lot of similarities with Capcom's exotic getaways. After all, particularly now they're presented in first-person, locations such as Castle Dimitrescu and the Baker family mansion have seen good gains in implementing true claustrophobic scares. Right down to the way we give you pouches to improve inventory space, let you move things around using items boxes, and have you combine objects to create vital resources, the inspirations are clear. We've even recruited our own nightmarish stalker character to hunt you from time to time, although he only does telegraphed sequences. We hope you'll at least agree that our attempts at replicating these approaches are admirable though much less polished.

It's the setting itself you'll come away with treasuring most fondly, as we've put a lot of work into making St. Dinfna Hotel exciting to navigate and pick away at. The events that take place inside are undoubtedly horrific; it's just that you might find that it pales in comparison to more memorable evil residences out there. Even if you never check in again, it'll be easy to enjoy your one-time visit. ⓦ

> **"We've even recruited our own nightmarish stalker"**

VERDICT

Fobia – St. Dinfna Hotel has a decent selection of puzzles and first-person scares to offer, but suffers from a lack of true genre innovation.

57%

Review

Stray

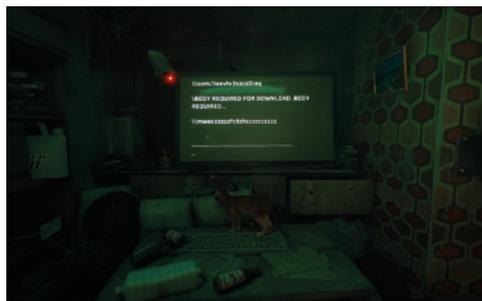Wireframe
CERTIFIED
HOT

Knows where it's at

Info

I t's me. A cat. I'm following my new robot mate to an apartment. The clumsy, inefficient biped is naturally much slower than me, and so I'm gently leaning my thumb on the analogue stick to keep pace. Remember how exciting it was when *The Witcher 3*'s NPCs matched the player's movement speed? That's because this stuff is usually a real snooze, full of awkward stops and starts, or waiting for your companion to play catchup. But *Stray*? Well, you're a cat. More importantly, you're a cat animated with such love, such satisfying sleekness, and perfect padding, that just walking feels like play. It feels so, so good to just move. To circle the robot's feet as he strides, to look up at the lights and signs and simulated stars of the walled city.

That city, it's a very different kind of place. Yes, it's oddly gorgeous in its derelict detail, and yes, it's full of robots and squeaking alien insects.
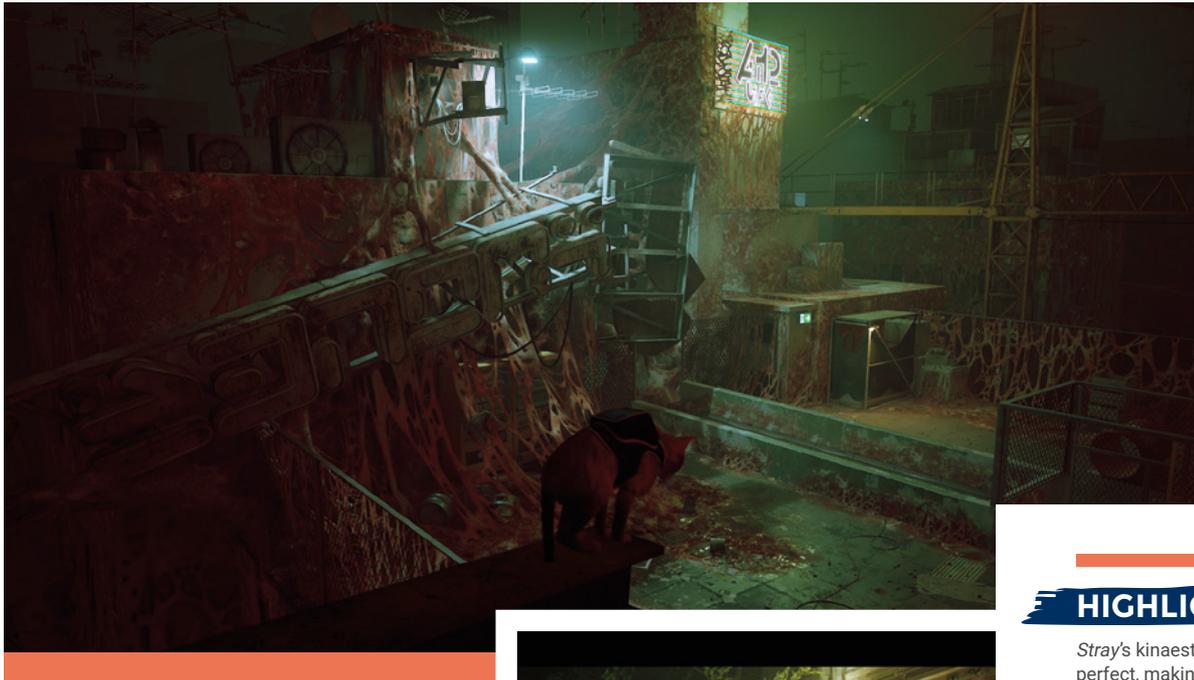
But it's mostly different because you're different. Soon after learning how to cat effectively – how high and far you can jump, which spaces you can squeeze through – you'll start to see the world in a new way. Every ledge and pipe is a new opportunity for freedom, every precariously placed plant pot an invitation to procrastinate with mischievous acts of miniature calamity. If you've ever lived with a cat, you know. If not: there's a reason we don't keep cereal on top of the fridge.

All jumping in *Stray* is performed with contextual button prompts. Sceptical? I was too. Don't be. It was absolutely the right choice. Not only is pouncing from spot to spot joyously freeing, but care has been taken to make everything that should be traversable so. If you can see it and reach it, and it's not covered in spikes, there's a very good chance you can jump on it. Don't want to walk down stairs? No problem. Use the railing instead. There's very little of the railroading that usually comes with contextual traversal.

This freeing exploration continues into puzzles and progress, too. Discovering *Stray*'s first town – a rusty ecopunk take on Hong Kong's Kowloon Walled City – is intimidating as it is energising. Summon the feeling of arriving at a new RPG town, then imagine its vastness viewed through feline eyes. The inhabitants have problems that only you and drone-companion B12 can solve, but there's no objective log or map markers.

∧ No two places in *Stray* look the same; each is filled with detail.

〉 If you've been annoyed by a cat doing it, it's probably a puzzle solution somewhere.

▲ **Your drone-buddy B12 translates conversations for you.**

Stray's kinaesthetics are pitch-perfect, making the simple act of movement itself feel like play. Every leap, bound, lope, and sprint is incredibly well-tuned and animated.

So you sniff around, explore, talk, follow directions. You parse out space at your own pace, and this is how *Stray* beckons you toward tempting distractions and paths less travelled, indoctrinating you into its uniquely sedate yet sprightly rhythm of play.

That's until things get tense, anyway. There are strange, skittering things in the forbidden places of the walled city, attacking in groups, leaping and latching on to you like bloated ticks. You'll need both feline wiles and speed to see you to safety, and while a later weapon-of-sorts betrays the cat-ness found elsewhere, *Stray* redeems itself by leaving these sections as one-offs. Later stealth sections are much more successful, once again providing opportunities for some top-tier cat theatrics.
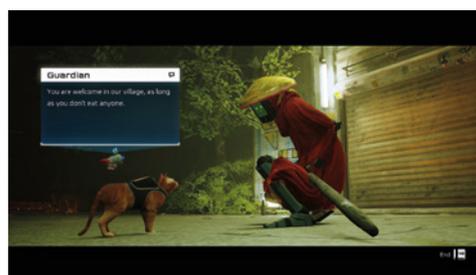
Still, even the weakest of these encounters are scored by highlights in an already incredible soundtrack – one that had me pawing at every old radio I found to hear more. Elsewhere, sound design is equally absorbing. There's no human speech in the game; dialogue is accompanied by a sort of glitchy, harmonious Simlish with its own wonderfully evocative musical quality. There's also a fine selection of random mews, rars, and rows that you can interject with the press of a button.

The less apparent mysteries of *Stray*'s world are best left unspoilt, and while its five-hour (six or seven if you fully explore) story doesn't reinvent the litter box, the quiet dignity,

> **"You'll need both feline wiles and speed to see you to safety"**

resolve, and hope of its inhabitants – especially B12 – imbue well-trodden themes with real emotional heft.

If you take one thing away from this review, though, please let it be this: I would hate for anyone to write off *Stray* as 'Cat Simulator'. It's not the one-note meme, trading in novelty and shallow, can-you-pet-it wholesomeness, that would have been so easy to make in lieu of substance. Yes, *Stray*'s cat is very much cat-as-idealised-pet rather than cat-as-animal – you won't be dragging any baby birds from their nests. And, yes, some of the close-ups are just that little bit too similar to *Shrek*'s Puss in Boots giving you the big eyes. But *Stray* uses this natural familiarity and affection to craft a beautiful mood piece, with all the creativity and focus of an independent short film, but with expertly characterful haptics that make it an absolute joy to traverse its detailed, gorgeous world. Providing, of course, that you don't get squeamish about brutally shredded upholstery. Ⓦ

VERDICT

The video game equivalent of a glorious afternoon nap filled with strange and wonderful dreams.

86%

Why not try...

Itch.io roundup

Picking out some of the platform's standout titles | **REVIEWED BY** Nic Reuben

Bat Likes Kobold

Nyeogmi / Free in browser / **wfmag.cc/kobold**

What if tic-tac-toe (or noughts and crosses, if you're a painfully literal English person) involved hidden information, poker style? Noughts are bats, crosses are kobolds (lizards), and you play against an AI. So far, so simple, but the trick here is that each side has an alternative win condition, kept secret from their opponent, whether that's to let the other side win, force a draw, or old-fashioned victory. I absolutely love the idea of cross-pollinating two simple, time-tested, elegant systems together and seeing what blooms, and the results are just as minimalistically moreish as you'd expect.

CANINE

PuKoGames / Free / **wfmag.cc/canine**

Fair warning: there's an absolute soiler of a jump scare buried in this first-person horror demo. Although, in the interest of retaining an air of mystery, I will not tell you where it is. Put it to the back of your mind for now, and find solace in the fact that you are the owner of a fine Alsatian dog named Tomy. But, oh no! He's gone missing. Search for your absent friend through PSX-era deserted streets and the corridors of an evil corporation's HQ, accompanied only by jaundiced lighting and a well-loved tennis ball. A short, but incredibly stylish and promising concept in a genre that can feel a touch cramped.

Unsewn

Jacozoid / Free / **wfmag.cc/unsewn**

Ever wanted to 3D-platform through a bizarre vision of the afterlife as Sackboy's strung-out cousin, on the advice of a celestial crow whose accent suggests that, could they not fly, they would most definitely be walking here? Rhetorical question, obviously. Part *Abe's Oddysee*, part *Mario 64*, this brilliantly original creation sees you collecting keys, saving your puppet brethren, and getting sick air via a desk fan. A visionary slice of what will, crow willing, bloom into a much larger project.

Cards with Sides

DevNugget / Free in browser / **wfmag.cc/cards-sides**

Some of my absolute favourite finds on itch.io are compact proof-of-concept strategy or puzzle games – no-frills projects with an ingenious central conceit that feels watertight enough to weather expansion to a full project. The excellent *Slipways* was one such game, and while this *Slay the Spire*-ish card combat joint feels like it's still in its nascent stages, it's reminiscent of that game's core design brilliance. Draw your hand, pick a card side for different effects, prevent damage, heal, and fight! A real gem, this one. ⓦ

The bonus game this month is *StarCraft: Demastered*, because it's cute: **wfmag.cc/starcraft-dem**

▶ STREAM OF CONSCIOUSNESS

MariaThePadawan dishes the details on her favourite games and streaming habits

What would you say is your favourite game of all time and why?

I've played so many games in my life now that every new one played makes it even harder to choose a favourite. One game, though, that I forever hold very dearly to my heart is *The Last of Us*. The story is incredible and the relationship between Ellie and Joel is so beautiful, and every step of the way you care for these characters more and more – and all of that alongside the threat of zombies. Let's be honest, we all love zombies. One other game I want to mention is *The Legend of Zelda: Breath of the Wild*. I had never played a *Zelda* game before and this one introduced me to the beautiful and creative world of all the *Zelda* titles. It's one of the games I've put the most hours into, and I will forever be in love with it.

Can you remember the game that first got you into gaming?

I can remember this very vividly. My mum's partner at the time was very much into gaming and he would be playing *DOOM* and *Tomb Raider* on his PC. I remember wanting to play too, so I would load up the last level of *DOOM* and tried to play, but kept failing miserably. He introduced me to *Tomb Raider*, which was the first series I fell in love with. I remember getting the little guidebooks to help me find secrets as well.

Has there ever been a time where you felt like you needed to take a break from gaming or streaming?

To be honest, there actually never really has been. I wasn't really able to complete a lot of single-player games due to work and doing YouTube videos at the time, so I focused on just short, funny montages of multiplayer titles such as *Overwatch*. Streaming gave me back that chance to just play through a game and

"I've always wanted to entertain people, ever since I was teeny-tiny"

enjoy the journey without thinking about the time needed to edit after. It reignited my love for single-player games.

For you, what's the appeal of streaming? What do you get out of it?

I've always wanted to entertain people, since I was teeny-tiny. Streaming has given me the opportunity to combine my passion for games and stories with my love to entertain people and give them a place to unwind and just have a good time. My friends have always told me that no matter how down they felt, whenever they spent time with me it made them feel better and I really hope that I can do the same thing for my viewers. Knowing I can make people laugh with my silliness and chaotic gameplay means so much to me and is one of the reasons I love streaming so much. The live interaction and being able to discuss game plots and game mechanics with others, as well as celebrate victories when they happen, is just magical. Ⓦ

Watch Maria stream LIVE! regularly on Twitch at wfmag.cc/MariaThePadawan

The Wireframe HOTLIST

The best PC games, according to Wireframe, catering for whatever your mood might be

The games for... BIG ADVENTURES

Elden Ring / *Bandai Namco* / **95%** (Issue 61)

Assassin's Creed Odyssey / *Ubisoft* / **93%** (Issue 1)

Yakuza: Like a Dragon / *Ryu Ga Gotoku Studio* / **90%** (Issue 45)

Amnesia: Rebirth / *Frictional Games* / **87%** (Issue 46)

Death's Door / *Acid Nerve* / **87%** (Issue 55)

The Last Campfire / *Hello Games* / **86%** (Issue 47)

Resident Evil 2 / *Capcom* / **86%** (Issue 7)

📷 **Stray** / *BlueTwelve Studio* / **86%** (Issue 65)

Journey to the Savage Planet / *Typhoon Studios* / **84%** (Issue 33)

The Outer Worlds / *Obsidian Entertainment* / **84%** (Issue 28)

The games for... REPEATED PLAY

Hades / *Supergiant Games* / **94%** (Issue 44)

They Are Billions / *Numantian Games* / **88%** (Issue 20)

Sekiro: Shadows Die Twice / *FromSoftware* / **87%** (Issue 11)

Streets of Rage 4 / *Dotemu/Lizardcube/Guard Crush* / **86%** (Issue 40)

Trials of Fire / *Whatboy Games* / **84%** (Issue 50)

Katamari Damacy REROLL / *Monkeycraft* / **84%** (Issue 4)

Spelunky 2 / *Mossmouth* / **83%** (Issue 44)

Hitman 2 / *IO Interactive* / **82%** (Issue 3)

Alba: A Wildlife Adventure / *ustwo Games* / **82%** (Issue 46)

Slay the Spire / *Mega Crit Games* / **81%** (Issue 45)

The games for... SOLID STORY TIMES

Disco Elysium / *ZA/UM* / **94%** (Issue 28)

Life is Strange: True Colors / *Deck Nine* / **89%** (Issue 57)

Mutazione / *Die Gute Fabrik* / **86%** (Issue 26)

Whispers of a Machine / *Clifftop Games/Faravid Interactive* / **85%** (Issue 14)

The Forgotten City / *Modern Storyteller* / **85%** (Issue 55)

Mythic Ocean / *Paralune* / **84%** (Issue 36)

Sunless Skies / *Failbetter Games* / **83%** (Issue 7)

Arise: A Simple Story / *Piccolo Studio* / **82%** (Issue 31)

Assemble with Care / *ustwo Games* / **81%** (Issue 27)

FAR: Changing Tides / *Okomotive* / **81%** (Issue 61)

The games for... FIRING UP BRAIN CELLS

Telling Lies / *Sam Barlow* / **92%** (Issue 24)

Kentucky Route Zero / *Cardboard Computer* / **90%** (Issue 33)

Slipways / *Beetlewing* / **90%** (Issue 53)

Heaven's Vault / *inkle* / **89%** (Issue 12)

Total War: Warhammer / *Creative Assembly* / **87%** (Issue 60)

📷 **Dorfromantik** / *Toukana Interactive* / **85%** (Issue 63)

The Pedestrian / *Skookum Arts* / **84%** (Issue 35)

The Legend of Bum-Bo / *Edmund McMillen* / **83%** (Issue 31)

A Monster's Expedition / *Draknek & Friends* / **82%** (Issue 47)

Total War: THREE KINGDOMS / *Creative Assembly/Feral Interactive* / **82%** (Issue 16)

The games for... HIGH-INTENSITY PLAY

Tetris Effect / *Monstars Inc./Resonair* / **90%** (Issue 4)

Sayonara Wild Hearts / *Simogo* / **89%** (Issue 25)

Chivalry 2 / *Torn Banner Studios* / **88%** (Issue 54)

Hot Wheels Unleashed / *Milestone* / **86%** (Issue 56)

Star Wars: Squadrons / *EA* / **86%** (Issue 45)

📷 **LEGO Star Wars: The Skywalker Saga**
/ *TT Games* / **86%** (Issue 62)

Devil May Cry 5 / *Capcom* / **84%** (Issue 10)

Black Bird / *Onion Games* / **84%** (Issue 3)

BPM: Bullets Per Minute / *Awe Interactive* / **83%** (Issue 45)

Resident Evil Village / *Capcom* / **82%** (Issue 52)

The games for... CURING THE INDIE ITCH

If Found... / *DREAMFEEL* / **92%** (Issue 44)

Can Androids Pray
/ *Natalie Clayton/Priscilla Snow/Xalavier Nelson Jr.* / **90%** (Issue 21)

Tales From Off-Peak City Vol. 1 / *Cosmo D* / **89%** (Issue 39)

Baba Is You / *Hempuli Oy* / **88%** (Issue 10)

TOEM / *Something We Made* / **87%** (Issue 57)

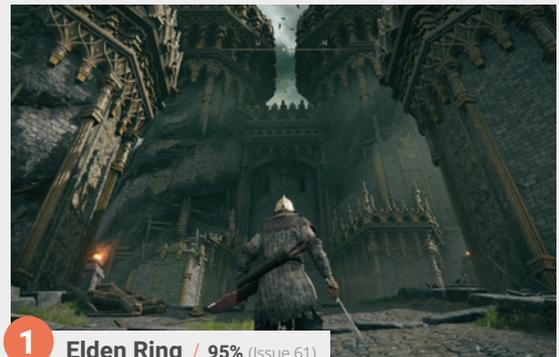**Afterparty** / *Night School Studio* / **86%** (Issue 33)

Witcheye / *Moon Kid* / **86%** (Issue 30)

Hypnospace Outlaw
/ *Tendershoot/Michael Lasch/ThatWhichIs Media* / **86%** (Issue 11)

Haunted PS1 Demo Disc / *The Haunted* / **85%** (Issue 39)

📷 **OlliOlli World** / *Roll7* / **84%** (Issue 60)

PC Top 10

1 **Elden Ring** **95%** (Issue 61)

A game of massive scale, packed with intelligence and mystery. A towering achievement.

2 **Disco Elysium** / **94%** (Issue 28)

Smarter and deeper than anything else; truly an RPG in a class completely of its own.

3 **Hades** / **94%** (Issue 44)

Proving 'roguelike' isn't a dirty word, learning-and-dying is a joy from start to finish.

4 **Assassin's Creed Odyssey**
/ **93%** (Issue 1)

The point where Ubisoft realised over-the-top adventures were the right direction.

5 **Telling Lies** / **92%** (Issue 24)

This FMV mystery asks more of the player than most, with rewards to match.

6 **If Found** / **92%** (Issue 44)

A compelling and beautifully illustrated narrative, as moving as it is memorable.

7 **Yakuza: Like a Dragon** / **90%** (Issue 45)

A bold, brash, and joyous rebirth for the long-running gangster series.

8 **Tetris Effect** / **90%** (Issue 4)

The question is 'how do you better *Tetris*?' The answer is: like this. This is how.

9 **Kentucky Route Zero** / **90%** (Issue 33)

Abstract style meets concrete commitments in this fantastic magical realist adventure.

10 **Neon White** / **90%** (Issue 65)

A free-flowing, first-person speedrunner that will have you chasing divine perfection.

Backwards
compatible

WRITTEN BY RYAN LAMBIE

Collector's edition

As I sit down to type this, Nintendo's just announced a collector's version of *Bayonetta 3*, which comes with an art book and some alternate game sleeves. Special editions like these are so ubiquitous these days that most gamers must have at least a couple cluttering up their shelves; while the industry's rapidly heading towards an all-digital future, there's still an appetite for physical keepsakes related to our favourite games. I was recently reminded, though, that the idea of packaging a game with a lot of extra, semi-related stuff is far from a recent idea. Gamers of a certain vintage will no doubt remember all those eighties and nineties games that came with posters and other bits and pieces; publisher Psygnosis crammed a T-shirt into *Shadow of the Beast*'s outsized box. ZX Spectrum clunker *The Great Space*

Race came in plastic box with a tome of a comic. PC adventure specialist Infocom packaged its games with all kinds of oddments – *The Hitchhiker's Guide To The Galaxy* came with, among other things, a bag of fluff – which it dubbed 'feelies'.

Over in Japan, similarly creative things were happening in the 1980s. The Famicom Disk System, launched in 1986 and discontinued four years later, briefly became host to a number of unusual releases which never appeared outside Japan. *Galaxy Odyssey Jigoma Sousa*, a hybrid of spaceship shooter and top-down run-and-gun, came in a sturdy box that housed a novella that expands the game's sci-fi plot, and a soundtrack on audio cassette.

A surprising number of other Disk System games were packaged in a

similarly lavish way. Obscure developer DOG tended to release its games in large boxes with extended manuals; among the prettiest are 3D shooter *Tobidase Daisakusen* and *Apple Town Story*, a port of David Crane's pioneering *Little Computer People*. Some of the best – and weirdest – releases for the Disk System came from Taito. For reasons best known to itself, at least two of its games were sold in plastic sleeves that resembled a pencil case – one was *Replicart*, an obscure action game akin to *Snake* on Nokia mobile phones. Another was the Famicom port of arcade classic, *Bubble Bobble*. Then there was *Kiki KaiKai: Dotou Hen*, which Taito released in a square package containing seven plastic figures based on characters from the game.

What was the reason for all this unusual package design? My guess is that it was a reaction to the threat of piracy. Although the Disk System wasn't entirely unprotected, it wasn't long before a means of copying games was uncovered. Just as western publishers sought to combat piracy in a variety of ways, it's possible those unusual boxes, soundtracks, and novels were a means of adding value to an easily copied game. Today, they stand as eye-catching relics from gaming's all-physical past.

Grad Lightyear

We don't actually know anyone who works at Pixar, but we're fairly convinced that at least a handful of them must be big fans of eighties Konami shooters. The evidence? This summer's *Toy Story* spin-off, *Lightyear*. One ship from the movie in particular, the XL-07, looks so much like the Vic Viper from the *Gradius* series that it seems unlikely to be a coincidence. There are those distinctive wings that flank the cockpit, and even blue markings over the engine that recall the version of the Vic Viper in *Gradius IV*. Sure, the proportions are a little more squat than in the *Gradius* games, but then this just makes the XL-07 look like the cuddly Vic Viper Konami put in its *Parodius* series of comedy spin-offs. Whatever the truth is, there are some pretty neat XL-07 toys on sale right now. Given Konami's reluctance to revive *Gradius*, it's about as close to official merchandise as we're likely to get.

The Mega Drive Mini 2 goes west

Here's something I wasn't expecting: the Mega Drive Mini 2, announced for Japanese markets in early June, is getting a western release. Initially, the heavily Japan-leaning line-up of games on the system – including *Shining Force CD*, *Popful Mail*, and *Nadia: The Secret of Blue Water* – led me to think that it might be a Japan-only system, much like the Game Gear Micro before it. As it turns out, the retro device is coming out in North America on 27 October (as the Genesis Mini 2), and will include a similar line-up of games that weren't included on the first: on it you'll find *Alien Soldier*, *Rainbow Islands Extra*, and the hilariously misspelled *Lightening Force* (better known elsewhere as *Thunder Force IV*). Back in Japan, more titles have been unveiled for the Mega Drive Mini 2 in its territory: among them you'll find Toaplan's port of *Tatsujin* (known here as *Truxton*), *Final Fight CD*, and *Fatal Fury 2*. Given these

were fairly high-profile releases in the west, we'd be surprised if these weren't also on the device launched in North America. A European Mega Drive Mini 2 hasn't been announced at the time of writing, but it's surely just a matter of time. Until then, it's pleasing to see the new Mini getting some slightly deeper cuts from the Mega Drive's storming library of brawlers and shooters.

Prince: Remastered

Jordan Mechner's cinematic platformer *Prince of Persia* got ported to just about every system imaginable in the eighties and nineties, including the Sega Mega Drive. That version greatly reworked the graphics and sound, with the Apple II original's flat visuals replaced by more detailed character sprites and varied, textured backgrounds. Not everything in the Mega Drive port was improved, though – the combat was more fiddly than the home computer versions, for example, and the controls in general felt sloppier and less responsive. But thanks to Brazilian developer Master Linkuei, we now have a new, remastered version that retains what was great about the Mega Drive port (namely, those sumptuous backgrounds) but fixes the laggy controls. It's now possible to do parries and counter-attacks during sword-fights, while other bugs and smaller inaccuracies have also been ironed out. You can download the latest version of the patch from **wfmag.cc/prince-remaster**.

Backwards
compatible

WRITTEN BY **AARON POTTER**

Licence to thrill

I'll admit I had my doubts when first pressing play on the new *GoldenEra* documentary, mainly because I was instantly met by Miyamoto's infamous quote about rushed versus delayed games. You know the one. Corny as it may be, however, the film makes a great case for Rare's seminal FPS as being the prime example of what excellence can be achieved when a developer is given enough time to execute on its vision. Because sure, while the eight-person team responsible for the Nintendo 64's multiplayer masterpiece delivered it two-and-a-half years late, look at the legacy *GoldenEye 007* has since left behind. It's this legacy that director Drew Roller chooses to explore in roughly 97 minutes, with a little help from industry veterans, insatiable fans, and the people behind the game.

The making of *GoldenEye 007* might be a well-documented tale for those who eat, sleep, and breathe games, yet it quickly becomes evident that *GoldenEra* isn't just for them. After all, one of the most impressive things about the James Bond

shooter was how it brought all people – not just gamers – together around a home console. It makes sense, therefore, that the angle here is a bit more mainstream. Although hearing journalists and critics recount the FPS genre's rise from *DOOM* to *Medal of Honor* might grate in that 'here we go again' sort of way, once you get into the real meat of *GoldenEye 007*'s lengthy development (as well as the affect it had on those who made it), the documentary mostly succeeds in being a definitive retelling of this story – at least in video form.

The level of access Roller and his crew were able to get is undoubtedly impressive. Hearing stories from the likes of character animator Brett Jones, composer Grant Kirkhope, and mission designer David Doak about development highs and lows is the absolute highlight; you really get a sense that it was just a group of friends and franchise fans coming together to make something special. Sadly, the absence

of *GoldenEye 007*'s director/producer, Martin Hollis, as a talking head is keenly felt, but it's more than made up for by anecdotes revolving around, say, the game's origins as an on-rails shooter, or how a cartridge containing the likenesses of Timothy Dalton, Roger Moore, Sean Connery (in addition to Pierce Brosnan's) may or may not exist out there in the world somewhere.

GoldenEra does at times suffer from its kitchen sink approach to pacing. In just a little more than an hour and a half we've catalogued Rare's establishment, *GoldenEye 007*'s development, the game's enduring legacy, why subsequent James Bond games failed to reach similar heights, and the devout modding scene that followed. Erratic structure aside, this all-encompassing documentary still managed to leave me shaken and stirred about the effort that went into what is arguably the most important first-person shooter ever made. Watch it for yourself here: **wfmag.cc/GoldenEra**.

Gotta go widescreen

Sonic the Hedgehog is one of those games that has always remained a constant in my life. Maybe that's due to it being the first game I ever played on my mum's hand-me-down Mega Drive, or Sega's sheer insistence on porting it to every console known to humanity. Whatever the reason, it makes an appearance yet again, alongside *Sonic CD*, *Sonic the Hedgehog 2*, and *Sonic the Hedgehog 3 & Knuckles* as part of the *Sonic Origins* collection. The remastered compilation launched a little late to squeeze it into the last issue and too early to feature it in this one as a full review, but there's just about enough new here to warrant a closer look.

After I first got over the fact this wasn't *Sonic Mania 2*, aka the next 2D Sonic game Sega should be making, the move to widescreen is a true sight to behold. Whereas previous ports or emulations have seen Sonic's fast-paced efforts confined by not being able to see the traps you're about to bump into, levels have been entirely rebuilt to fit modern screens. The resulting experience has

allowed me to navigate familiar locations like Green Hill Zone and Chemical Plant with a lot more accuracy than ever before. To some this change might seem slight, but it can make all the difference. Plus, if you're a die-hard Sonic purest, you can rest easy knowing that each game's original resolution can be enjoyed in Classic Mode.

That said, doing so is sort of missing the point, and would mean not getting to enjoy the glorious new full-colour animatics that bookend each game. For the first time ever there's some semblance of narrative consistency, as

Dr Robotnik's latest contraption from the last game is whisked off seconds before he teams up with Knuckles. Anniversary Mode is also where it's at for those who, you know, want to see the end of these otherwise punishing games. Lives are totally done away with in favour of infinite spawns, and a new coin currency straddling all four games means you have more than just a single chance to claim each bonus stage's Chaos Emerald.

Sonic Origins even goes some way to negate any issues people may have had with the original games, simply by nature of letting you play as Sonic, Tails, or Knuckles, complete with the spin dash. *Sonic the Hedgehog 3 & Knuckles*, for example, has always been my least favourite out of the three, largely because level layouts are too complex to maintain any decent momentum and there are far more cul-de-sac areas to bump up against. Getting to play as either Tails or Knuckles (complete with drop-dash) right from the very off helps take a slight edge off such issues. Particularly if you can get over the soundtrack changes present in this last game, I can see *Origins* easily being most people's go-to way to re-experience Sonic's earliest adventures. Just please give us *Sonic Mania 2* next, Sega!
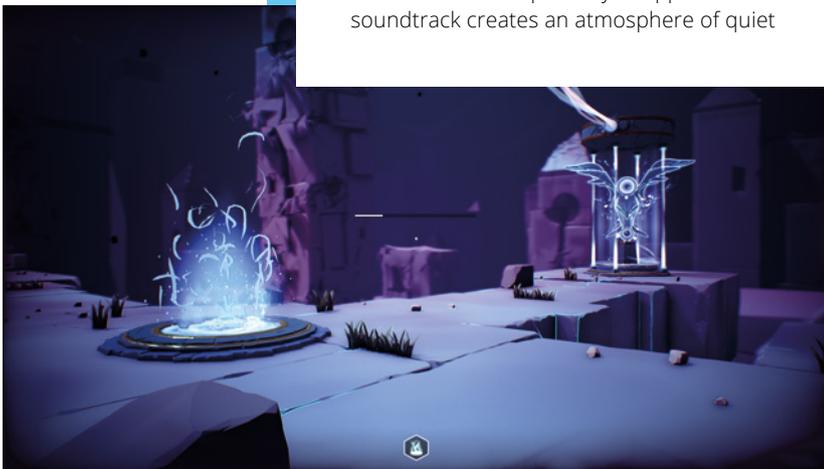
The statue is not awakened

This month, Ryan scratches his head over Shifting Tides' ethereal puzzler, The Sojourn

Whether they're small, contained match-three puzzlers or big, open-world action RPGs, all games are governed by rules of some kind. Those rules can be hidden behind big guns, even bigger explosions, or captivating graphics or soundtracks, but they're seldom too far from the surface. This is especially true of *The Sojourn*, developer Shifting Tides' first-person puzzler released in 2019. It takes place in a soft-focus, surreal world of ancient, abandoned cities and towering double doors that creak open as you approach. Its soundtrack creates an atmosphere of quiet contemplation, while the aphorisms you find in scrolls or above exits ("A collage of corruption is still corruption") add to the philosophical tone.

But while *The Sojourn*'s world may be dreamlike, its puzzles deal in cold, hard logic. The game's split into discrete areas (or 'challenges') with a single exit at the end. Getting to the exit requires you to methodically interact with a range of objects dotted around each space. First, there are certain enchanted spots that temporarily place you in a shadowy parallel world. Here you have the ability to switch places with statues, and you can use this power to, say, place a statue on a switch to unlock a gate. Your time in the shadow world, however, is limited by your movement: as you walk around, an energy bar decreases, and once it's empty, you're returned to the sunnier 'regular' world.

It might sound complicated, but it's easy to pick up in practice – in essence, you just have to remember that there are certain objects which can only be interacted with when you're in a temporary second state. As the game progresses, more objects are gradually added to block your path to the exit; there are harps that magically (and temporarily) conjure up bridges when plucked. There are enchanted relics which can be plugged into statues, allowing you to switch places with them without needing

to enter the shadow world. There are cloning chambers capable of generating a second statue once activated.

Shifting Tides' puzzles are undeniably devious, and I often found myself grabbing a pen and paper to sketch out the positions of objects and the moves I'd need to make in order to get from point A to point B. But while *The Sojourn* is challenging from a logical perspective, it's difficult to connect with on a more emotional level. There's precious little of the mischievous design that enlivened *Portal* or its sequel; there's none of the dizzying, often awe-inspiring spatial puzzle ideas that made *Superliminal* so unforgettable. Even *The Witness*, whose 2D connect-the-dots puzzles could feel a bit dry at times, was capable of wrong-footing the player with surprising and clever twists on those puzzles.

By contrast, *The Sojourn*'s puzzles become more complicated, but those complications don't combine to create new surprises or a sense of progression. It reminds me of something Stuart Maine wrote in his puzzle design guide on page 50: "Once players are comfortable playing with one of your systems, can you turn it on its head so they have to do the opposite of what they were expecting? Once you've exhausted each system alone, consider how they can be combined in surprising ways."

> ## "*The Sojourn*'s puzzles deal in cold, hard logic"

If you think about games in terms of verbs – the words that describe the stuff you actually get to do – *Superliminal* allowed the player to shrink, grow, push, pull, throw, smash, jump, and so on. In *The Sojourn*, you're mostly switching and activating. 'Switch' and 'activate' aren't particularly scintillating verbs, which might explain why they aren't necessarily exciting things to do repeatedly in a five-plus hour game.

Having typed all this, I still spent several hours in *The Sojourn*'s company, quietly doing battle with its designers and their cunning arrangements of statues, switches, harps, and mysterious energy beams. I pondered over the meaning of its story, largely told through static figures of mothers and fathers, soldiers and old sages. (I initially thought it might be a riff on Shakespeare's seven stages of man, before I got to what I can only describe as the "parents introduce their adolescent son to Gandalf" stage illustrated above and realised I must've gotten my wires crossed.)

As the last statues clicked into place and the final doors opened, I patted myself on the back and congratulated myself on a job well done. I wasn't left awed as I was with *Superliminal*, nor as engrossed by an enveloping sci-fi plot as I was with *The Talos Principle*. *The Sojourn* didn't capture my heart, but it certainly exercised my brain. Ⓦ

Wireframe Recommends

Obduction
PC, PS4, PSVR, HTC VIVE, XBO, MAC, OCULUS RIFT
Myst was the great grandparent of all these first-person puzzle-'em-ups, so it only makes sense to give a shout-out to *Obduction*, Cyan Worlds' spiritual successor to that 1993 hit. Whether you play it in VR or not, it's an absorbing sci-fi brain-teaser.
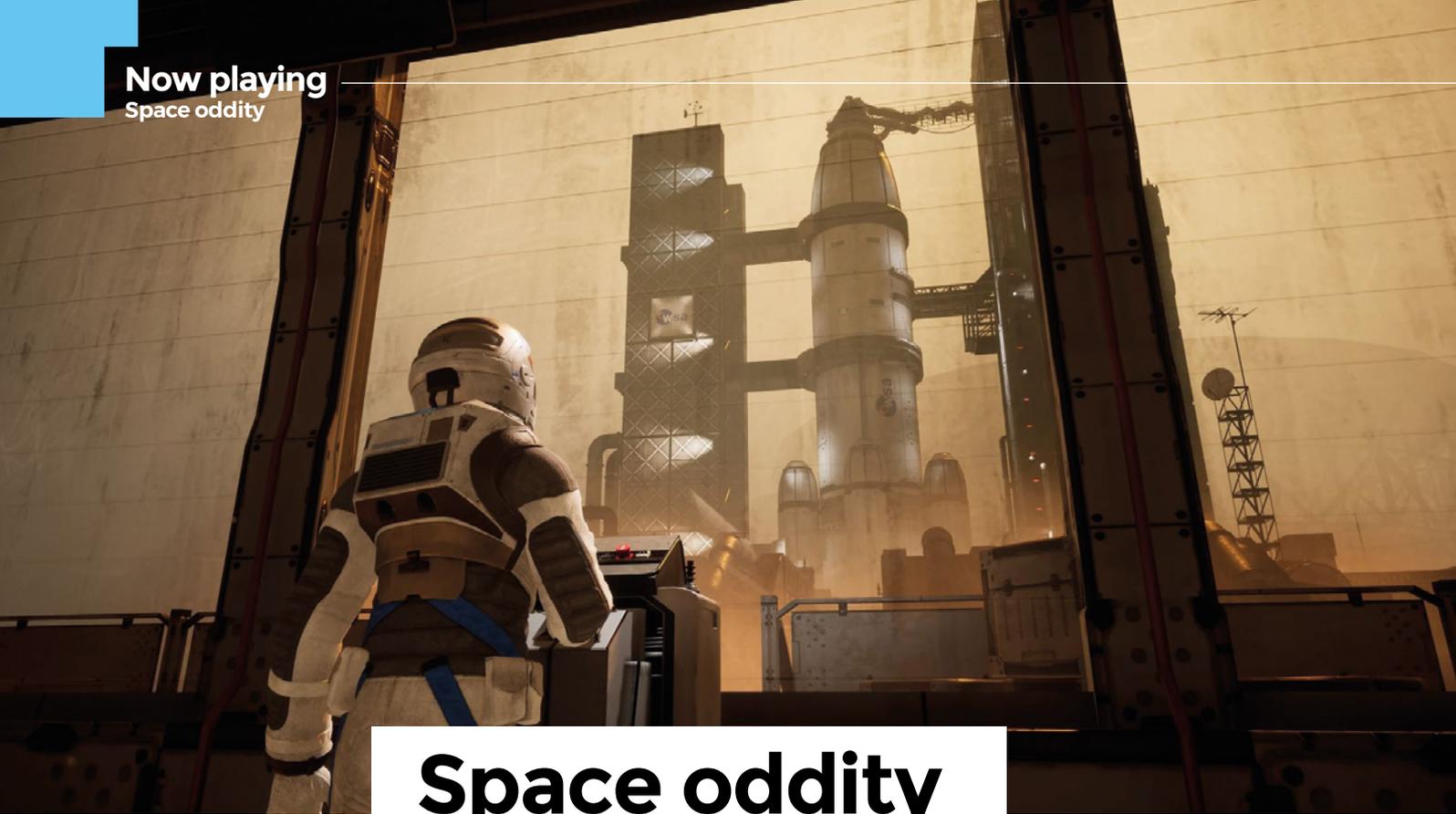

Antichamber
PC, MAC, LINUX
Unfolding like a faintly terrifying kaleidoscope, developer Alexander Bruce's *Antichamber* owes a debt to the clean, lab-based puzzlers that came before it (*Portal* being one), but the sheer level of imagination and brain-melting complexity make this one a must-play.

Hyperbolica
PC, MAC, LINUX
You don't have to know what non-Euclidean geometry is to enjoy this psychedelic adventure – just think of it as a colourful puzzle box where the rules keep bending and changing in unexpected and occasionally charming ways.

Space oddity

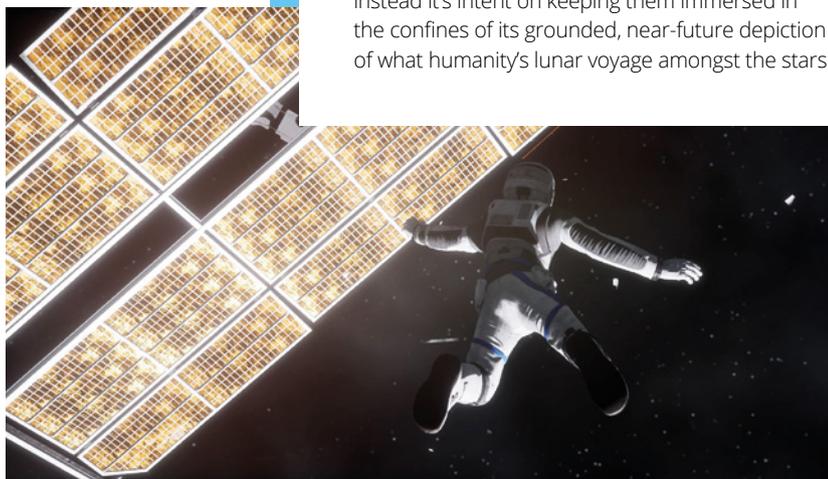Aaron shoots for the stars in Deliver Us The Moon, KeokeN Interactive's original sci-fi adventure

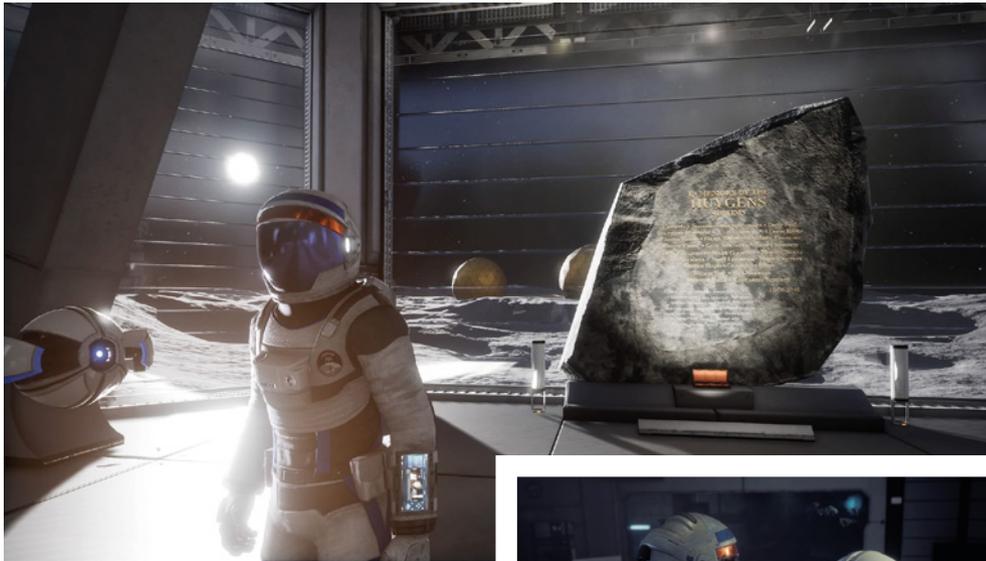**W**hen I originally reviewed *Deliver Us The Moon* for this here magazine way back in Wireframe #28, I called it "one giant leap of a thoughtful space adventure". Revisiting it three years on – largely as a result of its upcoming sequel gloriously gracing last issue's cover – this sentiment firmly remains. More impressive now, however, is just how singular it continues to be in both its vision and execution – even compared to a lot of space-set games released since. This is a hard sci-fi title uninterested in dazzling players using rote cinematic tricks; instead it's intent on keeping them immersed in the confines of its grounded, near-future depiction of what humanity's lunar voyage amongst the stars might entail. KeokeN Interactive's debut does all this and still finds time to evoke a strong sense of melancholy and isolation.

What's at stake is beaten into your lowly astronaut right from the off. It's 2059, Earth's natural resources have been depleted, leading the population to rely on mining helium on the moon. Oh, and communication with the colony base there has just gone dark. As a setup it's fairly simple (and a tad clichéd), but it's more than made up for by the way *Deliver Us The Moon* builds up and maintains the importance of this bold task. Surprisingly, it'll be a good two to three hours before our hero even sets foot on Earth's satellite, first having to prep the rocket and complete its launch sequence in appropriately thrilling fashion.

This brief portion of the game, which takes place at the WSA (Worldwide Space Association) base, is essentially a tutorial, getting you up to speed on how basic actions like running, scanning, and how the majority of puzzles will work. That said, turning the hydrogen valves necessary to prime the rocket for launch, only to ignite its engines and then immediately rush into the cockpit before it threatens to leave without you, is one heck of a way to kick off what is otherwise a fairly chill solo mission in space. It's evidence that *Deliver Us The Moon* can be bombastic when it wants to, yet only really does

so when it makes sense, and never to the degree that it becomes overwhelming.

Most of your time traversing facilities like the Tombaugh Research Station, Copernicus Moonhub, and Reinhold Crater is spent investigating what caused the blackout five years before your arrival. You see, the MPT relay network is what's responsible for transmitting helium to Earth, and now it's your job to explore what happened here and realign those transmitters. Much of the context for this you learn through audio logs, text documents, and hologram messages, as expected. Adding a fresh layer of narrative complexity, though, is that your humble Fortuna astronaut isn't actually the first to try and resolve this issue.

Soon after arriving on the space station situated directly above the moon, the various ephemera you uncover hint at not just what went wrong for the initial lunar colony but also the prior team of investigating crew, too. Through this, *Deliver Us The Moon* swiftly becomes a story about chasing ghosts, as you try to correct the course of humanity by understanding and overcoming the failings of the previous people here. Following breadcrumbs in such a manner is, of course, nothing new in games. However, it works superbly here to reinforce the idea that you're the world's last hope, letting you feel truly alone while still finding a way to have other voices guide you.

Swapping around power cells to open up base sections, aligning moon surface transmitters, and using your trusty floating robot companion – the ASE – to access locked-off areas quickly

"A hard sci-fi title uninterested in rote cinematic tricks"

becomes second nature. And though it's a shame the journey isn't quite long enough to see these different puzzle types evolve into more in-depth versions of themselves, the wider narrative at play is enough to inspire you to push on. There's a definite sense that KeokeN Interactive is still finding its feet here as a first-time developer. Evidence of this is seen in a much more interesting stealth-puzzle sequence present in the game's last chapter, which was originally added post-launch.

Despite this minor niggle, *Deliver Us The Moon* continues to be one of the most affectionate tributes to other pieces of hard sci-fi cinema, like *2001: A Space Odyssey*, *Interstellar*, and *Moon*, that I've ever played. The tools and gameplay mechanics it uses to relay the seriousness of its themes might be familiar, sure, but they're streamlined in such a way that I can't help but stay engrossed in this gripping sci-fi mystery. It's already apparent that this year's follow-up, *Deliver Us Mars*, is making some bold leaps in storytelling – there's a protagonist's face you can, you know, see, and a more varied set of environments to explore. My only hope is that when expanding in scope, KeokeN Interactive doesn't lose the melancholic, world-weary edge that makes the original so captivating. Ⓦ

Wireframe Recommends

Tacoma
PC, PS4, XBO
Fullbright's *Gone Home* successor also sees you play the role of a silent observer exploring a barren space station. Learning what happened to the missing crew creates a true sense of place.

Dead Space
PC, PS3, XB 360
The USG Ishimura is remembered as one of the best space settings in games for a reason. Poor Isaac Clarke has a hard time staying alive, but slicing off necromorph limbs is good fun.

JETT: The Far Shore
PC, PS3, PS4, XB 360, XBO
Exploring an unknown ocean planet is sometimes hard work, as proven by Superbrothers' 2021 space adventure. Flying your jet around to examine wildlife and fauna is deeply atmospheric.

Double Dragon

To mark Double Dragon's 35th anniversary, Ryan pays
tribute to its ground-breaking array of weapons

TECHNOS JAPAN / 1987 / ARCADE

I t took until 1987 for a game developer to first think,
"What if the player could pick up an oil-drum and
throw it at a bad guy?" Or, more enticingly still, "What
if the player could punch an enemy, causing them to
drop their baseball bat, then let the player pick up the
bat and pummel the enemy around the head with it?"

Thank goodness for *Double Dragon*.

Looking back, it's remarkable just how quickly the beat-'em-
up genre evolved. Irem's *Kung-Fu Master* came out swinging in
1984, it being the first game to establish the generic staples
of a lone martial artist walking along a bit, kicking or punching
a bad guy in the face, then walking along
a bit more. Just two years later, Technos
Japan came along with *Renegade* (released
locally as *Nekketsu Kōha Kunio-kun*).
A game we covered in Wireframe #15's
Killer Feature, *Renegade* pushed the genre
into new territory: not only were there a greater number
of moves (including the ability to run, throw an enemy over
your shoulder, and kneel over the prone body and belt them
repeatedly around the jaw), but there was also a greater
freedom of movement. Where *Kung-Fu Master* was rigidly 2D,
Renegade allowed the player – and enemies – to move in and
out of the screen on the Z axis, making accurate positioning
key to landing (or avoiding) a successful blow.

Just one year after *that*, Technos Japan returned with *Double
Dragon* – a beat-'em-up initially conceived as a sequel to
Renegade, and which builds on that game's own innovations.

**"The violence threatens
to make *Kung-Fu Master*
look like *Hey Duggee*"**

The controls were made less fiddly, there was a greater variety
of enemies and stages, while the two-player co-op added to its
appeal (and, no doubt, Technos's coffers).

The impact of adding weapons and background items
that could be picked up and used by the player, meanwhile,
shouldn't be underestimated. It added a greater level of
unpredictability to the combat, as players scrambled to get
hold of knives, whips, nunchaku, or sticks of dynamite dropped
by enemies. It also added to the game's sense of thuggish
violence and urban malaise. It's a tone that *Renegade* captured
remarkably well, too, and appears to have sprung directly from
designer Yoshihisa Kishimoto, who drew on
his own troubled youth for his game about
a hot-blooded student getting into repeated
fights with street gangs. The urban malaise
reaches an apocalyptic level in *Double
Dragon*, with its action taking place among
cities and industrial areas that appear to be on the verge of
falling apart. As players elbowed villains in the throat or felled
groups of enemies by throwing a gigantic crate at them, the
level of violence threatens to make *Kung-Fu Master* look like an
episode of *Hey Duggee*.

We can only guess at what *Double Dragon* might have
looked and played like if Technos had better hardware to play
with; in later interviews, Kishimoto sometimes complained
that he and his team were frequently having to downgrade
the size of sprites or the number of colours to avoid the
game slowing down. Even in its finished state, *Double Dragon*

still grinds to a crawl when there are too many enemies stumbling onto the screen; it also suffers from a number of well-documented glitches, including an infamous one where enemies will dutifully fling themselves into a chasm if the player stands in a certain spot.

Still, rough around the edges though it was, *Double Dragon* was a true innovator. Its success was absolutely stratospheric, sparking a wave of both obvious copycat titles (see Alpha Denshi's cheekily similar *Gang Wars*), and also beat-'em-ups that improved on the formula. Sega's *Golden Axe* arguably looked and sounded prettier. Capcom's *Final Fight* both streamlined *Double Dragon*'s combat and made it feel weightier. Incredibly, those latter games were both released in 1989, which meant the beat-'em-up essentially went from invention to the pinnacle of refinement within the space of five years.

Just about every beat-'em-up that came after *Double Dragon* contained weapons that could be picked up and wielded in some fashion. Interestingly, *Final Fight* had fewer weapons to pick up than *Double Dragon*, though it's arguable that the sight of *Final Fight*'s Haggar wielding a colossal steel pipe resulted in one of the most indelible images in the genre's history. Taito's *Growl* (also known as *Runark*), on the other hand, featured an absurdly broad array of weapons, ranging from whips and rocks to machine guns and rocket launchers. *Streets of Rage* featured an assortment of knives, bats, and also a pepper shaker.

All those games, and many more besides, owe a debt to designer Yoshihisa Kishimoto and his wild teenage years. Thank goodness for *Double Dragon*. Ⓦ

A tribe called combat

Technos Japan put out two *Double Dragon* sequels before the studio went bust in 1996. The law of diminishing returns applied, and the less said about the home computer and console ports, the better. One Technos game that did receive an excellent home port, though, was *The Combatribes* – a lesser-known beat-'em-up that has a lighter, less seedy tone than *Double Dragon.* First appearing in arcades in 1990, it was later ported to Super Nintendo by none other than Yoshihisa Kishimoto. Unusually, it doesn't allow the player to pick up weapons, though you can pick up an enemy by the feet and whirl them around like an outsized baseball bat. Unfortunately for Technos, *The Combatribes* made its arcade debut in May 1990 – mere months after Capcom's smash hit, *Final Fight.* Less than one year later, *Street Fighter II* became an even bigger sensation. Suddenly, scrolling beat-'em-ups were out; one-on-one fighting games were in.

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