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“PERSONAL COMPUTERS GIVE US PERSONAL EXPERIENCES”



This issue, we're looking back at some of the most iconic games PC gaming has seen – games that shaped the history of the medium. But I didn't want it to be *purely* historical, because ultimately PC gaming is as much about us players as the games themselves. Personal computers give us personal experiences.

ROBIN VALENTINE**Specialist in**
Defining PC Gamer magazine every month**Twitter**
[@robinlvalentine](https://twitter.com/robinlvalentine)**This month**
Was reminded of what he used to look like before he got laser eye surgery.

So this feature reflects us as a team, dwelling not just on the games, but on our relationship with them – the ways they've shaped us as PC gamers. I hope you're inspired to think on those that have shaped you, too, and, in the warm glow of nostalgia, can forgive us for our more out-there picks...

ROBIN VALENTINE
PRINT EDITOR
robin.valentine@futurenet.com**SUBSCRIBE TO**
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The PC Gamer team

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Found a new appreciation for ants in *Grounded*. Which is good because his flat is infested.**TYLER WILDE**
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Gave us a history lesson on graphics cards. Did you know the first one was the size of a bus?**JORGE JIMENEZ**
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Facial RGB lighting**Twitter**
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Discovered the most cyberpunk way yet to protect yourself from the pandemic.

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MONITOR

NEWS | OPINION | DEVELOPMENT



There's lighting around the replaceable disc-type ventilators, internal lighting to make your mouth more visible in the dark, and of course it can be customised in various colours.

BEHIND THE MASK

RAZER moves from PC to PPE

A big trend at this year's Consumer Electronics Show was the number of companies investing big in personal masks and other sorts of PPE for daily use. The fact Razer ranked high among them with Project Hazel is genuinely no surprise, either: the company has been heavily involved in mask production during the pandemic.

Project Hazel marks a new level of ambition and is Razer's attempt to make the "world's smartest mask", a step up from your typical cloth and paper masks, by introducing a

reusable design loaded with features and tech for everyday use. Hazel is a surgical N95 respirator with active ventilation and auto-sterilisation, though those features aren't new for highly-rated masks. What Razer says sets Hazel apart is the innovative quality of life and comfort upgrades it

**YOU CAN LOOK 'SICK'
WHILE HOPEFULLY
NOT SPREADING
SICKNESS**

manages to stuff into the mask. The transparent design (and low-light mode) is great for social interactions because the mask wearer's face can be seen: no more smiling gormlessly at someone who doesn't realise. Another benefit of the see-through design is that it makes it easier to communicate with someone who relies on lip-reading for interaction.

Another feature to get excited about is a neat built-in voice amp which alleviates any issues with your voice being muffled. Hazel's filters are replaceable, its ventilators are rechargeable, and get a load of this: it's stored in a wireless charging case that sterilises the mask with UV light.

HOLD POSITION

FAREWELL, CS:GO BOTS



Valve has removed *CS:GO*'s bots from competitive and wingman matches. So, when a teammate disconnects, or is vote-kicked, you really are down a player – no second chances! While the community isn't on board with the specifics of the new change, this feels like a step to combat toxicity. ■ **EM**

UP, DOWN, LEFT, RIGHT

AUTOMATA'S FINAL SECRET



After "hundreds of hours of reverse-engineering" determined dataminer Lance McDonald discovered *Nier: Automata*'s last secret: a cheat code performed after killing the first boss that transports players to the 'last' of the game's many endings. ■ **RS**

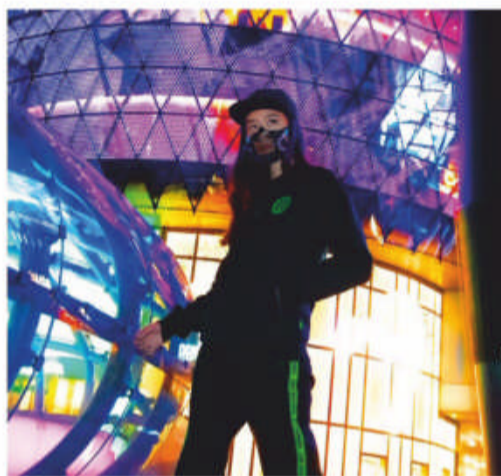


KISS AND MAKEUP

MAC'S SIMS 4 PALETTE



The Sims 4 recently had a makeup collaboration with MAC. But the MAC x *Sims 4* palette was so low-effort it bombed: not only was the colour scheme uninspired, the palette itself was one MAC plucked from their vault of old releases and stuck a *Sims* label on. MAC eventually pulled the whole collab. ■ **MT**



ABOVE: Razer says Project Hazel's high bacterial efficiency (BFE) filters will impede 95% of airborne particles, though there's no indication of how often you'll have to replace them.

LIGHT RELIEF

Finally, and just in case you forgot this was a Razer product, these masks come with custom RGB LEDs so that you can look 'sick' while hopefully not spreading sickness. People who wear glasses will be happy to know that an airtight seal around the mask will help prevent your lenses from being fogged, which is one of the most frustrating things about wearing a 'standard' mask.

One important thing to note about Hazel is that it is designed for the consumer market and is not a medical-grade mask, which means the equipment may not meet medical professionals' requirements for essential work. These are for anyone looking for slightly more protection and comfort than a paper or cloth mask.

Razer co-founder and CEO Min-Liang Tan says that, "Razer acknowledges the uncertainty in the road ahead, and so it was our duty to help protect our community members and prepare them from invisible threats."

The masks are coming soon, Razer says, though it's not yet announced the release date or pricing for the kit. Masks are going to be a part of our lives for some time to come and, while it's strange to think about, that will probably make Hazel the most important hardware Razer's created to date.

Jorge Jimenez

Highs & Lows



HIGHS

Steam

In December Steam registered its highest-ever number of concurrent players: 24,776,635 PC gamers.

Pacifist panda

WoW player DoubleAgent reached the new level cap of 60 purely by picking millions of flowers.

New Elder Scrolls?

Bethesda tweeted an image of a map along with the date, 4E 182, which is before the events of *Skyrim*.

Cyberdunk

CD Projekt's woes continue with a class-action lawsuit launched by investors, and Poland's consumer protection agency is investigating.

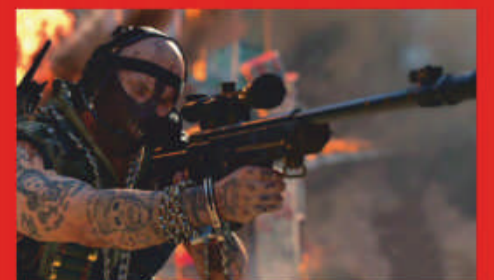
Pogchamp

After the man whose face was the popular Pogchamp emote called for "civil unrest" during the Capitol riot, Twitch removed the emote.

DMRZone

Call of Duty: Warzone players are angry about DMR weapon domination and infinite stim glitches.

LOWS



The Spy

BUT WHO WATCHES THE SPY?

They say that you're never more than six feet away from a rat. They say actors are never more than six degrees away from Kevin Bacon. They say *The Spy* is never more than a single leap away from a room's most advantageous egress point. And, they say, on the internet you're never more than a few clicks away from yet another *GTA VI* rumour.

The latest has to do with a patent filed by Rockstar parent company Take Two, concerning a "system and method for virtual navigation in a gaming environment". So far, so generic, but what's raised eyebrows is that the system's inventors are listed as David Hynd and Simon Parr, both of whom work for Rockstar specifically.

The patent covers how NPCs move through environments, and specifically seeks to reduce the resource cost of having multiple NPCs act and move realistically – regardless of hardware or software limitations. The upshot of this lengthy and technical document and its many obtuse graphs, charts and diagrams is that it would help create more autonomous, more believable AI in open world games. Drivers, for instance, with more individual personality, or behaviours that change based on the weather and surrounding hazards. This, though, raises some deep

philosophical questions. For instance, *if*, hypothetically, we take this as a cast iron confirmation that *GTA VI* is in development, what does that actually mean? Seriously: to what massive extent has your life been enriched by this legal document, and its veiled implication as to the existence of the follow-up to a wildly popular game that pretty much everyone kind of instinctively already knows is currently being made?

"Ah, but *The Spy*," you may be thinking, "given *GTA Online*'s ability to basically print money, surely there's no guarantee Rockstar would even bother making *GTA VI*."

But this is a weak argument, and you know it. The only thing corporations love more than money is more money, and Rockstar is about to run out of new platforms that they can re-release *GTA V* on. At some point, something has to give. Even Valve, which takes a cut of every sale of every game on Steam, still sometimes makes a game – even if it's just *Artifact*.

ROCKSTAR TURN

The Spy would argue that *GTA VI* is an inevitability, and every rumour, leak or scrap of information that serves to add evidence to its existence is ultimately a waste of your time. The question isn't 'if', it's 'when', and the answer is likely still quite a few years away.

"Ah, but *The Spy*," you may counter, "you have forced me, an imagined reader, to voice a weak objection to your initial premise – one that you could easily shoot down unchallenged because you are allowed to frame both sides of this argument. This is a lazy rhetorical device when, for all you know, the only reason anyone ever looks at this page is because it has a fun cartoon picture at the side and an old magazine cover at the bottom. Maybe my eyes by chance came to rest on this very paragraph, and I'm now forced to reckon with an argument that you're pretending I'm having about a thing I haven't even read. That is no way to treat a person."

And... hmm, yes, fair point. If you'll excuse *The Spy* for a second, *The Spy* just needs to leap – er, step – away. *The Spy* will be right back. (Spy out.) ■
The Spy

TO WHAT MASSIVE EXTENT HAS YOUR LIFE BEEN ENRICHED BY THIS LEGAL DOCUMENT



THE SPY
The Spy still hasn't worked out how to train rats to steal microfiche.

This month in... 2011



ISSUE
224, March 2011
ON THE COVER
Shogun 2: Total War
IN THE CINEMAS
Tangled



1 Here it is, then. Issue 224. We could talk about the in-depth *Dear Esther* feature, the previews of *Crusader Kings II*, or the interview with id's Tim Willits about, er, *Rage*. How about our cover star, *Shogun 2: Total War*? No, of course, you just want to know about the *Dragon Age II* review. Here's a picture of Tom Francis in a fun costume.

2 Tom also gets to dig into the tantalising prospect of *The Elder Scrolls V* in a six-page feature. *Skyrim* was loved, but also often maligned. Although not as much as...

3 OK, yes: *Dragon Age II* gets 94% in our review, and – oh boy – did the internet have some opinions about that. It's an enthusiastic review, for sure, but around its issues there's actually a lot to love about Bioware's most divisive RPG – even today. As Rich himself argues in the review, "Not gamings best story, but maybe its best storytelling."



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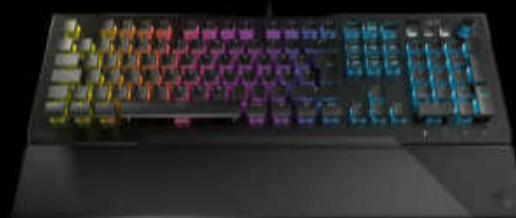
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Special Report

PCG INVESTIGATES

SHIP OF DREAMS

Before Cameron's *Titanic*, a game let you explore the doomed vessel

Time travel, international espionage, explosions – not *exactly* what you expect from a game about the sinking of the *Titanic*. But *Titanic: Adventure Out of Time*, a '90s FMV adventure made by a little studio in Knoxville, Tennessee, isn't your typical *Titanic* story. It's definitely bolder (and maybe even more ambitious?) than more famous *Titanic* stories, tying the events on the ship into other historical moments from the 21st century.

Released in 1996, *Titanic: Adventure Out of Time* was a moderate success, but it wasn't enough to save developer CyberFlix's failing publisher GTE Entertainment. Then James Cameron came along. Luckily CyberFlix was able to keep the rights to the game and re-release it in the wake of the blockbuster film, in perhaps the most fortuitously timed game release in history.

No one expected *Titanic: Adventure Out of Time* to be such a smash hit – especially not the people who made it, who were mostly graduates from the nearby University of Tennessee. “We had washing machines in the back,” recalls Michael Kennedy, a 3D designer on *Titanic: Adventure Out of Time*. “It was somebody's condo. It was like a tree fort. We'd show up, you'd spend all your waking hours, then you'd go home and get a couple hours of sleep

and come back in as soon as you could manage. We had some very good parties at that place and we had bands come in and all that. It was very much a lifestyle and pretty punk rock, I think.”

Titanic: Adventure Out of Time sold decently when it debuted in 1996. But that turned out to be just a warm up for 1998 when it re-entered the PC charts. By 1999, it had sold more than a million copies. CyberFlix employees couldn't believe their luck, and took the newfound success as a sign of a bright future for the company.

“I would love to say that we had some insight into what was coming, but really a lot of people were working on *Titanic* projects at the time,” says Andrew Nelson, the writer and producer on *Titanic: Adventure Out of Time*. In 1996, there was an award-winning novel set on the *Titanic*; in 1997, a Broadway musical. When they started their game, CyberFlix's developers had no idea Cameron's movie was also in production. It wouldn't have made any difference. After all, you can't copyright a historical event – not that Hollywood wouldn't try.

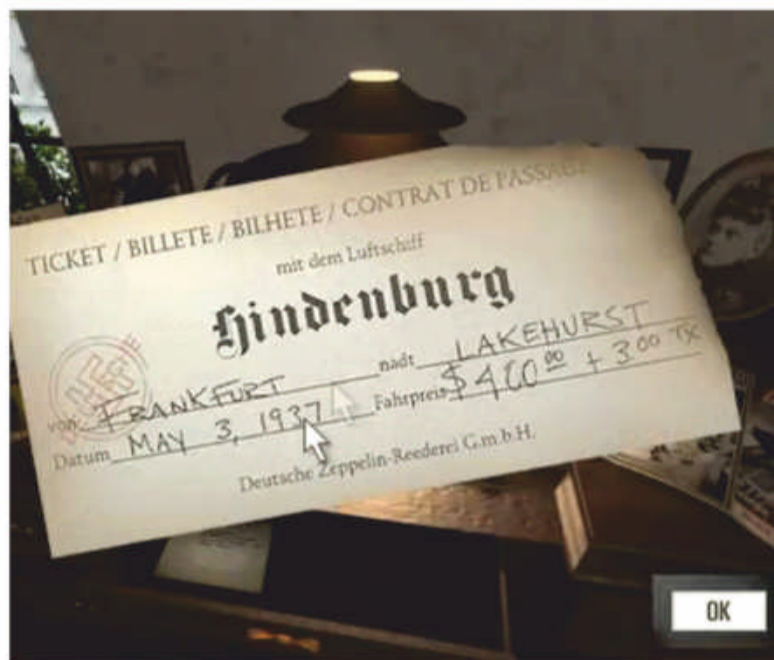
SHIP SHAPE

Aside from the ship, the game and the movie didn't have much in common. In *Titanic: Adventure Out of Time* you play as Frank Carlson, a disgraced civil servant. The game starts with Carlson looking over old newspaper clippings



Talking heads

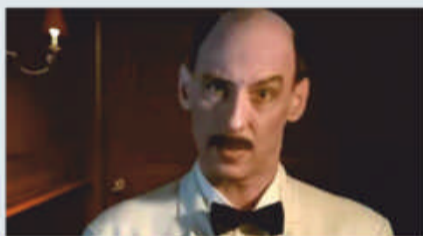
Titanic: Adventure Out of Time took advantage of DreamFactory, a proprietary authoring technology created by Bill Appleton, which allowed CyberFlix to take better advantage of multimedia features. The devs used facial scanning technology to capture the likenesses of real actors. Most of these performances were then dubbed over.



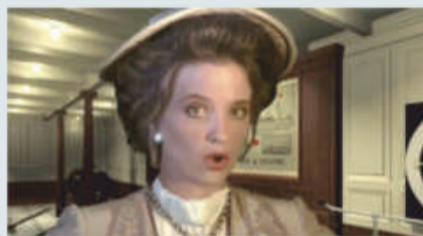
FAR LEFT: The Titanic's Grand Staircase in the game was modelled after the version found on sister ship The Olympic.

LEFT: Carlson starts the game in a crummy apartment in 1942, surrounded by memorabilia from the 20th century.

SHIP MANIFEST *The passenger and crew of the RMS Titanic*



JOHN SMETHELLS
Smethells is the first character you meet aboard the Titanic and acts as a guide if you get stuck.



PENNY PRINGLE
Your fellow agent aboard the Titanic, Pringle gives your mission briefing and guides you where you need to go.



THIRD OFFICER MORROW
Morrow is an officer aboard the Titanic. Though vigilant, he can be reasoned with, using the right approach.



BEATRIX CONKLING
Beatrix is a passenger aboard the Titanic. When you find her she's being bribed by her former house servant.

in 1942, when an explosion sends him back in time to the Titanic's final days. Carlson had actually been aboard the Titanic in 1912 to prevent the exchange of stolen war plans, but failed his mission the first time around. Given a second chance he must stop the trade from happening, in the hopes of steering Europe away from World War I.

To obtain the perfect ending, you needed to find four MacGuffins: a valuable copy of Omar Khayyam's *Rubáiyát*, some jewellery, a painting, and a notebook with the names of Russian revolutionaries. You only had a finite amount of time to accomplish this, with certain tasks moving the clock closer to the ship's inevitable sinking and the mad dash to escape the wreck.

The game controls like your standard 3D point-and-click adventure. You navigate using the arrow keys and interact with items and passengers by pressing the left mouse button and either dragging or selecting from a list of options.

"People use the word 'haunting' a lot to describe this game," Nelson says. "And I know the feeling, because late at night while I was strolling down those hallways – and how they were lit by our designers, and the amazing score that Scott Scheinbaum did, it had a very otherworldly feeling to it. Sometimes even I would get chills walking through it and encountering some of these passengers."

Despite the phenomenal success of the game, CyberFlix wouldn't last much longer. CyberFlix couldn't replicate the popularity of *Titanic: Adventure Out of Time* with its final game, *Redjack: Revenge of the Brethren*.

There was no magic timing to make it a hit, and CyberFlix ceased all productions in 1998. For the staff, it was a bitter come down from the heights of just a year prior

"I don't know if it had just run its course. Working in the visual effects industry or games industry, as we all know, is rather choppy," says Michael Kennedy. "Things can end unexpectedly. But that was my first time, so that was a point of great fear and 'oh gosh, what are we going to do now?'. Fortunately, I was able to get some referrals and stuff and moved onto the next thing."

Looking back, Kennedy and Nelson are in awe of what they were able to achieve given the size of the team and

the resources they had available to them. CyberFlix had started with just a handful of people working out of Bill Appleton's garage, and at its peak was still only 30-40 people stuffed into a condo. There were no extravagant server

rooms or endless rows of expensive workstations.

"It was definitely a labour of love," Kennedy says. "It was one of those things we really put blood and sweat into ... all you were doing was working on this project. I think that really shows."

If you want to play *Titanic: Adventure Out of Time*, you're in luck. Unlike other games from the era that have since crumbled into abandonware, it's available on both Steam and GOG, so that a brand-new generation can explore the cursed ship. Just don't expect to see Leonardo DiCaprio anywhere in sight. ■

Jack Yarwood

NO ONE EXPECTED TITANIC: ADVENTURE OUT OF TIME TO BE SUCH A SMASH HIT

Positive Influence

INSPIRATIONS AND CONNECTIONS IN GAMES

LORD OF CHAOS

How *XCOM*'s **JULIAN GOLLOP** improved on the board games he loved

Thank you to the 1980s schoolkids who wouldn't let Julian Gollop join in. They were playing *Warlock*, a wizard-battling board game from a new publisher named Games Workshop, and Gollop was forced to watch from the sidelines. He consoled himself by picking holes in the game's design. *Warlock* had cards, which represented player's spells. But its board was wholly cosmetic – once the wizard tokens were placed in their floating arena, they didn't move again. "What's the point?" thought Gollop. "This board is useless."

And so he built *Warlock* for himself – unlicensed but better. In Gollop's game, when a wizard summoned a creature, its card was placed on the board and moved around like a counter. Rather than simply playing the hand they were dealt, wizards directed units around a changing battlefield. Gollop called the game *Chaos*, and in 1985, he remade it for the Spectrum. The publisher? Games Workshop.

For most developers, a game's story would have ended there. But Gollop remade *Chaos* again in 1990, and in '98, and most recently as *Chaos Reborn* in 2015. That impulse, to find the flaws in the games he loves and improve on them, has driven the *XCOM* designer throughout his career. "There's always an element of unfinished business," he says. "I could have done that better, or it would have been more interesting to have done it that way."

Gollop's first love was *Escape from Colditz*, one of the many board games that cluttered the family home. While his dad preferred the abstract purity of *Bridge* and *Cribbage*, young Julian was won over by the historical

tunnels and accurate layout of Castle Colditz's map. "It tried to simulate the actual reality," he says. "It wasn't very good at it, but that was fascinating to me."

The same fascination led Gollop to play *Sniper!*, a WWII tactical sim in which each soldier could carry out many actions ("A prepared satchel charge which has been thrown or placed in a hex may be picked up by an enemy man as if it were a friendly weapon"). And from there, he graduated to Avalon Hill's *Squad Leader*. "You had little counters that represented entire squads and individual vehicles," he recalls. "It definitely wins the prize for being the most complex board game in existence. The full rulebook for that, and you can still buy it, is a vast folder."

That folder spoke to the limitations of the tabletop. As much as Gollop appreciated board games that reached for simulation, there was no denying they placed a burden on the player to keep track of the numbers. A burden that, by the '80s, could be taken on by PCs. "I saw computer games as a way of liberating players from the tedium," Gollop says, "allowing them to have an immersive experience in something which was simulating reality in some ways."

THE OLD WORLD

Gollop's career has been intertwined with Games Workshop, which became the first UK distributor of *Dungeons & Dragons* in the late '70s – fuelling several years of Gollop's weekend roleplaying sessions with a friend. He even worked on the digital version of a Games Workshop game, *Battlecars*, building a *Mad Max*-style car designer.

It would be inaccurate to say that *Warhammer* influenced Gollop, however. Rather they emerged simultaneously as part of the British board game zeitgeist. "It's from the same origins," Gollop says, "which is hex-and-counter wargaming." You can still see a shared philosophy at work in *XCOM* and, say, *Blood Bowl* – both games leaning into fickle chance, delighting in the thrill and terror of permanent consequences.

Lately, Gollop has returned to another influence from his childhood home – namely that of his brother, Nick. For many years, the pair worked together on games like *XCOM: Apocalypse*, where Nick's taste for grand strategy games such as *Civ* and *Master of Orion* was brought to bear. You can see the throughline in *Phoenix Point*, which is as much a game about faction conversation, trading and betrayal as it is squad tactics. The reason it took Julian so long to get into 4X himself? "Usually it got to a point where I was playing a game which I thought was great, but I wanted to make my own which was better." ■

Jeremy Peel

FIRST CONTACT *Three inspirations that hatched XCOM*



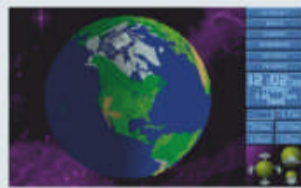
FREEDOM IN THE GALAXY

A spoof *Star Wars* board game that not only offered planetary missions with individual characters, but zoomed all the way out to management of an empire.



TRAVELLER

Gollop grew up loving sci-fi over fantasy, and so D&D gave way to this interstellar tabletop RPG. An expansion named *Snapshot* modelled close combat on gridded spacecraft.



GERRY ANDERSON'S UFO

After *Thunderbirds*, Anderson created this series about a defence team named SHADO (Supreme Headquarters Alien Defence Organisation).

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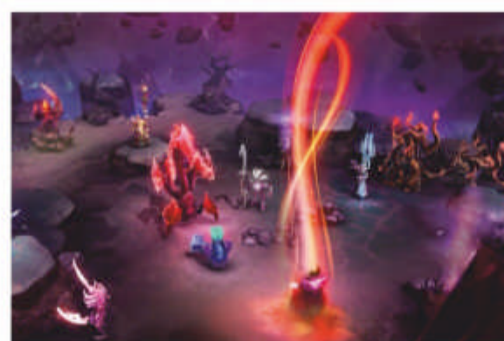
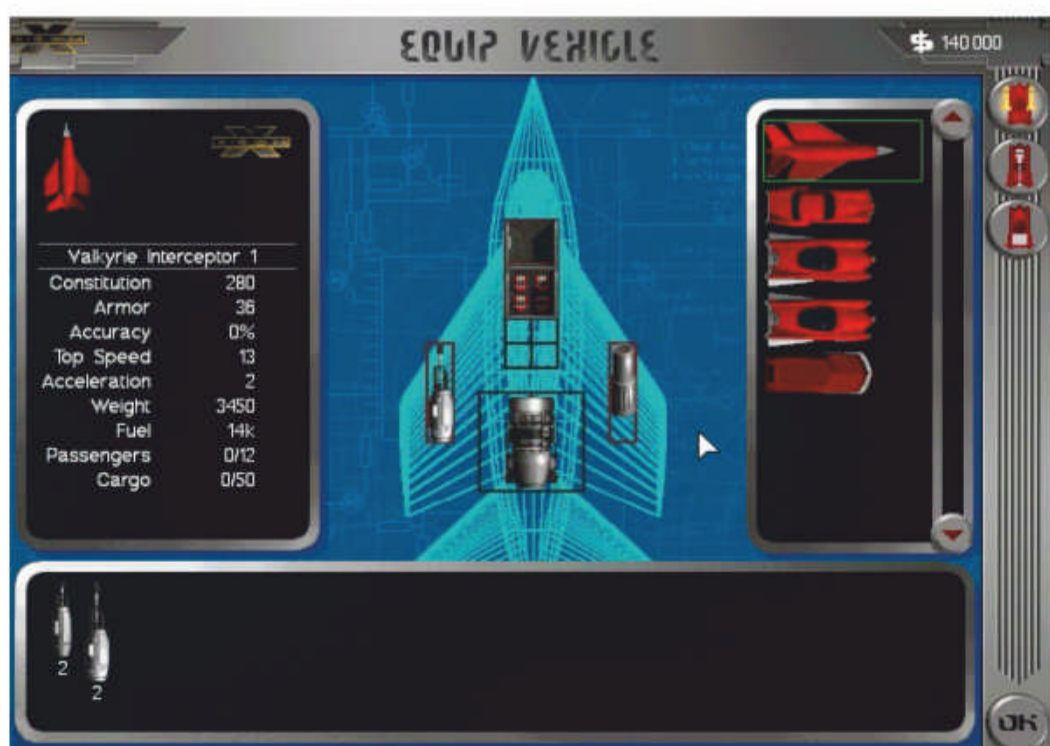
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“I SAW COMPUTER GAMES AS A WAY OF LIBERATING PLAYERS FROM THE TEDIUM”



ABOVE: Gollop's fondness for freeform ballistics is an exciting recipe for friendly fire.



UPPER LEFT: *Chaos Reborn's* little-played campaign mode quietly set the stage for *Phoenix Point*.

A movie poster for 'The Dark Knight Rises' featuring Batman and Catwoman. Batman is on the left, looking forward, wearing his iconic suit. Catwoman is on the right, looking back over her shoulder at the viewer, wearing her signature purple and white outfit. The background shows a large airplane flying in a cloudy sky. A red banner at the top right contains the text 'DNA' and 'acing'. Below it, a black banner contains the text 'ES EXPLORED'. At the bottom left, a red horizontal line is above the text 'IT WAS THE KIND OF DREAM DIRECTORSHIP THE TRIO COULD NEVER HAVE HOPED FOR', which is also underlined with a red horizontal line.

DNA

acing

ES EXPLORED

**IT WAS THE KIND OF
DREAM DIRECTORSHIP
THE TRIO COULD NEVER
HAVE HOPED FOR**

DETECTIVE AGENCY

The story of Irrational, the studio that shut down to rediscover its roots

Why choose the name Irrational? Because, although it would one day be worth millions to a major American publisher, the studio's founding was not a sensible decision. Jon Chey, Rob Fermier, and Ken Levine had all left full-time jobs at Looking Glass Studios, and only one of them had ever shipped a game. The year was 1997, and so there was no way for a small studio to distribute games independently – they would have to rely on the blind faith of publishers.

It went about as well as you'd expect: within three weeks, Irrational's first deal was cancelled. The game was *FireTeam*, a *Counter-Strike*-style tactical shooter co-designed by Arkane's Harvey Smith. Irrational had been tasked with developing a single-player campaign, until the publisher decided *FireTeam* simply didn't need one.

No sooner had they left, the founders of Irrational returned to Looking Glass with, if not their tails between their legs, then their caps in their hands. Irrational's old bosses allowed them a shoestring budget, a single tiny room, and handed them *System Shock 2* as a first project. It was the kind of dream directorship the trio could never have hoped for if they'd stayed put. An irrational game.

System Shock 2, when it hatched, reflected the environment it was incubated in. Looking Glass was a university for cerebral game design – at one point literally, with short-lived internal lectures. It valued first-person immersion, slow burning atmosphere, and non-linear storytelling. And in the course of making *System Shock 2*, those became Irrational's values too.

LICENSED TO KILL

Ironically, Irrational turned out to be the more sensible studio. Where Looking Glass stretched itself too thin across self-funded projects, Irrational took on licensed

work from publishers. It learned to funnel its values through the prism of mainstream shooters, turning multiplayer FPS *Tribes* into a single-player thriller about a multi-generational cycle of revenge. It's a theme that would come around again in *Bioshock Infinite*'s Comstock family – who, as central character Elizabeth concludes, are doomed to exploit and be exploited by each other.

Even *SWAT 4*, a straightforward-seeming squad shooter sequel, was encoded with Looking Glass DNA. Levine had been a key designer in the early development of *Thief*, which starved players of information, forcing them to lean in and soak up the dense atmosphere. *SWAT 4* was much the same. Although it was an anti-stealth game – about checking shadowy corners rather than occupying them – the incomplete minimaps and limited visibility of its detached homes and tenements left players tense and cautious. As with *System Shock 2*'s Von Braun, *SWAT 4*'s levels felt lived in, domestic spaces turned dangerous. It was a game that proved *FireTeam*'s publisher satisfyingly wrong – Irrational could make a single-player tactical shooter, and make it essential.

BIOSHOCK FINITE

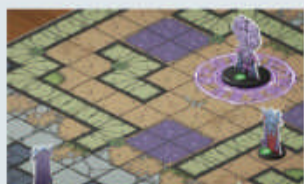
It's this experience, in streamlining the best qualities of the immersive sim, that explains Irrational's approach to *Bioshock*. On *System Shock 2*, the goals had been different: the team had moved as far away from

BELOW: There really isn't enough fooshing in games today.



RATION PACK

A guide to some great games from former Bioshock devs



CARD HUNTER

After a few years spent gardening, Jon Chey grew tired of retirement and led development on this top-tier tactics game, which mimics the earnest aesthetic of early D&D.



ELDRITCH

A roguelike immersive sim that goes big on the systemic elements that *Bioshock Infinite* left behind. *Thief* fans ought to check out David Pittman's *Neon Struct*, too.



THE NOVELIST

Haunt a family home by hopping between the light fittings in a sweet, low-key stealth game from Kent Hudson – most recently game director of *Watch Dogs: Legion*.

TWISTING TIMELINE

There hasn't always been a lighthouse, actually

KEY

- Irrational Games
- Looking Glass
- Multitude



shooter territory as it could. Knowing that *Thief's* Dark Engine could barely muster a machine-gun, let alone match the performance of *Quake*, Irrational stuffed its debut with class-based abilities and an economy that led players to carefully manage their character development and resources. The result was arguably the first FPS-RPG.

When it came time to follow up *Shock*, Irrational pushed in the opposite direction, eschewing D&D stats and ammo restrictions in favour of a more accessible adventure. *Bioshock* went harder than ever, however, on the studio's narrative ambitions. Levine had already established himself as a voice of skepticism against extreme ideology of all kinds; in *System Shock 2*, the target was The Many, a hivemind that skewered the dehumanising potential of collectivism.

For *Bioshock*, he tackled the other end of the spectrum, exploring a version of free market libertarianism that glorified individual enterprise. This dystopian thought experiment was named Rapture, and Irrational's experiment paid off – *Bioshock* was a hit that almost anyone could pick up and play, yet didn't talk down to its huge audience. It politicised a generation, driving unprecedented traffic to Ayn Rand's Wikipedia page.

Like many studio success stories, *Bioshock* locked Irrational into a path that ultimately doomed it.

Bioshock Infinite, proved divisive because it streamlined the formula still further – vanishing systemic triumphs like Big Daddy battles in favour of more scripted shooter thrills.

Immersive sim fans began to grumble, measuring the distance Irrational had travelled from its Looking Glass values and frowning in disapproval.

SEA CHANGE

That nostalgia was evidently reflected internally, too. *Infinite* launched with a '1999 mode', which recreated the harsh resource economy of *System Shock 2*. And by *Burial at Sea – Episode 2*, Irrational had regressed all the way to



LEFT: Beating a Big Daddy generally involves misdirection, not whatever this is.

BOTTOM: Does anyone else know Irrational made a *Borderlands* game? I think it's just us.

1998, building a *Thief*-style stealth game in *Bioshock's* engine. Levine drew from the same film noir influence that had inspired his work with Garrett.

If it seemed like Irrational was falling out of love with the mainstream, that was confirmed when Levine announced the end of the studio as we knew it. "It will be a return to how we started," he said. "A small team making games for the core gaming audience." To Levine's surprise, company owner Take-Two Interactive decided not to keep on the vast majority of staff who were surplus to requirements.

There's been more to Irrational's story since than most are aware. Jon Chey's Canberra division, also called 2K Australia, survived long enough to make *Borderlands: The Pre-Sequel!* – a shooter that

recalled the jetpacks of *Tribes: Vengeance* – before it too succumbed to the changing winds of publishing. Yet half a decade on, Levine's tiny new venture has yet to bear fruit. There are whispers of a small-scale open world game, rooted in the idea of 'narrative Lego' – a repeatable, remixable story, designed to respect player agency as Looking Glass once did. Levine, it seems, has tired of asking us that familiar question, "Would you kindly?" ■

Jeremy Peel

BIOSHOCK LOCKED IRRATIONAL INTO A PATH THAT ULTIMATELY DOOMED IT



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GROUNDING

Finally, a survival game with good bugs

When I first found myself trapped in an oversized garden in *Grounded*, Obsidian's homage to *Honey I Shrank the Kids*, I quickly became a killer of ants. Much bug blood was spilled in those early days, but then came the guilt, especially when I discovered that, like many of *Grounded*'s beasties, the ants aren't naturally hostile.

I had no idea, as I was bludgeoning them to death with rocks, that when they waddled up to me they were just being inquisitive. When I see a bug the size of a horse heading my way, I assume it wants to eat me. I've tried to make amends, and for most of the last six months I haven't so much as bopped an ant with my tiny fist. We're not quite friends yet, but we're definitely cordial neighbours. Well, most of the time. It's not been without its challenges, however, because these ants can sometimes be massive pricks.

After the initial revelation that I'd been needlessly slaughtering peaceful bugs, we still had some awkward run-ins. All of *Grounded*'s garden critters have distinct behaviours that go beyond just being chill or aggressive. A wolf spider will try to end you the moment it spots you, but isn't beyond running away if you prove to be a bit too tough to handle. Goofy gnats, meanwhile, like to hover around and give you the occasional bop, but they won't instigate any fights. Of the lot, however, the ants are the most unpredictable.

When I started building my first base, back in June, the ants quickly started to become a nuisance. They're an inquisitive and slightly greedy bunch, so every day I'd have to chase them away from my little storage area, where they'd inevitably be rooting around for food. I became exasperated, because it wasn't like I was rolling in resources. I really needed that

stuff. I could have died without it. Look, that's my defence and I'm sticking to it. The ants had to die.

GARDEN WARFARE

After that, things got rough between us. Instead of just a few of them coming to rummage around in my wicker baskets, wee armies started to appear. And when I fought them off, they came back with not just more ants, but bigger ants. These beefcake soldier ants can really kick the crap out of a miniaturised child. They even started trashing my base, knocking down walls and entire buildings. Granted, these buildings were made out of grass, but grass is pretty thick when you're tiny.

The relationship became untenable. I'd forgotten about the nightmarish spiders or my mission to embiggen myself, with this ant war taking up all my time. There were just too many of them, and they kept coming. I realised I'd probably need to move the base, but what if they followed me? Had I just picked a fight with one hive, or did all ants have it in for me? It might be a suburban garden, but *Grounded*'s ecosystem still feels like an alien one that needs to be learned and studied.

I didn't end up moving. Instead, I started again, this time with a co-op bud in tow. This new beginning allowed me to avoid the mistakes I'd made with the old ants and try to be a better neighbour, or at least a less bloodthirsty one. My co-op partner and I were on the same page, which made it easier, and we worked together to find peaceful solutions whenever we bumped into some bugs. Shooing ants away and trying to block them with our bodies has just become part of our routine.

On more than one occasion we've returned to our base to find a line of ants scarping with our supplies. They clutch their ill-gotten gains in their pincers, shamelessly displaying what they've stolen, giving them a sort of roguish charm. It's hard not to laugh as they leg it back into the grass forest with their

PLAYED
IT

GROUNDING'S ECOSYSTEM STILL FEELS LIKE AN ALIEN ONE THAT NEEDS TO BE LEARNED

Grounded



➤ bounty of stolen gnat meat. Occasionally we try to chase them, but once they've got their pincers around the goods there's not a whole lot we can do without fighting. Nature sometimes wins.

ANT FARM

Burglaries have become less of a problem since we started placing all of our precious stuff high up, safely tucked away in buildings on stilts. The ants still visit frequently, but there are fewer opportunities for them to cause mischief. That hasn't stopped them from trying to bring chaos back into our base, though. Recently, I returned after an extended stay in a new waterside outpost we'd just established, and discovered that the damn ants has turned our old base into some kind of weevil murder pit.

Weevils are among *Grounded's* most friendly creatures. They don't fight, they don't cause any mischief, and they taste pretty good. They're probably more deserving of my friendship than the ants, so it's a shame that they're one of my main sources of nourishment. The ants like snacking on them too, which I guess explains why I found a huge herd of them being systematically slaughtered in my base. The ants had even managed to corral them into one of *Grounded's* giant landmarks, the Mysterious Device. It has a hollow interior, so the ants had chased the weevils inside it, leaving them hopelessly trapped. The noise... it left a mark on my soul. Unrelated, I was also very hungry, and that's the only reason I ducked into the Mysterious Device to grab the weevil remains the ants hadn't already snatched. No point letting it go to waste!

All animals hunting each other has become a bit of a shortcut to creating a world that seems alive. It's incredibly effective, too. It's entirely conventional these days, but seeing the world react and change without my input still makes me believe in it more. That effectiveness possibly explains why most games stop there. Rockstar went to ridiculous lengths to make *Red Dead Redemption II* feel like a tangible world, down to the infamous shrinking horse balls, but while its critters still have behavioural patterns, ultimately everything still boils down to hunter and

prey. That's why I keep coming back to *Grounded*. Like the ants, it's unpredictable.

That it's slowly unfurling through Early Access has unexpectedly enhanced its capacity to surprise. I'd generally much rather play fully-formed games, but *Grounded* is a big mystery – from its narrative, to how its critters will react to you – and benefits from being revealed over months. You start getting used to things, and then suddenly there's a massive bird that's the size of a bloody skyscraper looming over your base, dropping feathers everywhere. Like a real ecosystem, a few tweaks can have a big impact. And because it's still growing, I don't feel the need to devour it all at once; I'm exploring it slowly, with some big gaps, and then returning to find a whole new set of mysteries waiting for me.

WEIRD SCIENCE

All survival games task you with expanding your knowledge and learning to master your environment, but *Grounded's* the first game I've played in a long time where I'm actually excited to discover new things instead of just relieved that I'll have one less thing to worry about. When you've built a hut in the woods a thousand times, that doesn't hold many surprises, but *Grounded's* exotic world means that every construction project has a weird quirk and every expedition holds the promise of a long and meandering adventure into the unknown.

At first glance, it doesn't seem anything like Obsidian's RPGs, but the emergent narratives it creates would absolutely feel at home in any number of them. I've been stuck between warring factions of bugs, journeyed into the dark heart of an evil thicket with eight-legged monsters hounding my every step, and fumbled blindly deep below the earth in search of enlightenment – or as the game calls it, Raw Science. It's almost enough to make me forget all about bullshit like hunger and thirst meters.

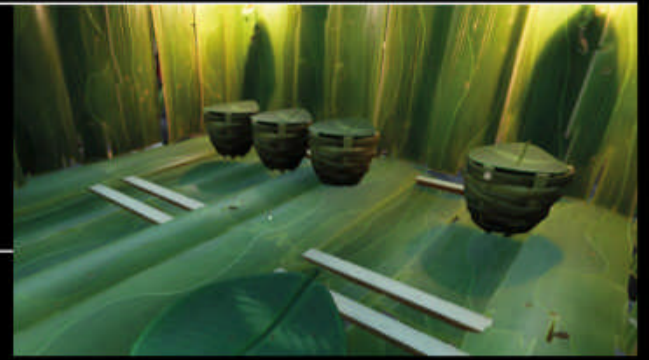
Through all those trials and adventures, though, I haven't beaten up a single ant. Not since I started fresh. Not even the soldier ants that I occasionally come across, who are automatically hostile. I've gotten so used to it now that it might as well be a rule etched in stone: Leave Ants Alone. I didn't even seek out retribution when, after devouring that herd of weevils, they got over-excited and completely trashed my moisture farm. Ants will be ants.

Fraser Brown

THE DAMN ANTS HAVE TURNED OUR OLD BASE INTO SOME KIND OF WEEVIL MURDER PIT



I used to really like this thing before it became a weevil abattoir.



For lunch: raw mushrooms with a side of dew on spiderwebs.





RUINARCH

Heard of god games? How about a devil game instead?

The premise of *Ruinarch* is simple: you are a powerful extradimensional evil that must dominate and destroy, by whatever means you choose, a fantasy world. It's set up like a god game, but you're the devil instead: whispering lies into peoples' ears, starting cults, and raising up monsters.

PLAYED IT

Ruinarch plays out in a setting like a colony builder – except you're the bad guys. The invading armies from *Dwarf Fortress*. Randy Random from *RimWorld*. The villagers start off unaware of you, going about their lives, marrying, farming, hunting, building their towns. There are something like 10 to 30 of them in most games. *Ruinarch* is a sandbox where your task is to subvert or kill every one of them.

You have a lot of tools to do it. The biggest are summoning demons to patrol your base or attack the enemy, and breeding monsters that will either invade the towns or abduct (and eat) their



vulnerable people. Those draw attention, and if your threat level gets high enough a party of villagers will go on the offensive – or worse, the forces of the divine will send angels to stop you.

The most satisfying tool is social manipulation. You're the classic devil whispering in someone's ear. Harald flirts with Jane but is married to Nylea? It'd be a shame if Nylea found out about it. It'd be worse if Jane's husband found out. Enough bad things in someone's life and they'll snap, sometimes violently.

Now layer on the power to inflict conditions on villagers: make them a serial killer, a werewolf, a vampire, make them unfaithful to their spouse, agoraphobic, hotheaded, or just an insomniac. It's really satisfying to sour a village's relationships

IT'S REALLY SATISFYING TO SOUR A VILLAGE'S RELATIONSHIPS

and let your infiltrated vampires and psychos slowly tear them apart.

SOCIAL MURDERFLY

In the current Early Access build, however, not all evil is created equally. Playing as a social manipulator can be painfully slow and frustratingly random compared to simply sending in the flaming meteors or zombie plagues. If you want a cult you'll have a lot of waiting, sharing secrets, and then more waiting before an abduction will allow you a decent chance to brainwash. Meanwhile, a plague spreading necromancer can turtle up, spread a virulent pox, then tweak it to be deadly once everyone is infected.

Future updates promise big changes: villagers will get detailed skills, more things to build, and an economy to trade with each other. The forces of evil will also get an updated, hopefully more detailed, base-building system. For now, *Ruinarch* is a promising toy for those who love god games, but if you want a balanced experience you're better off waiting for it to get more development time.

Jon Bolding



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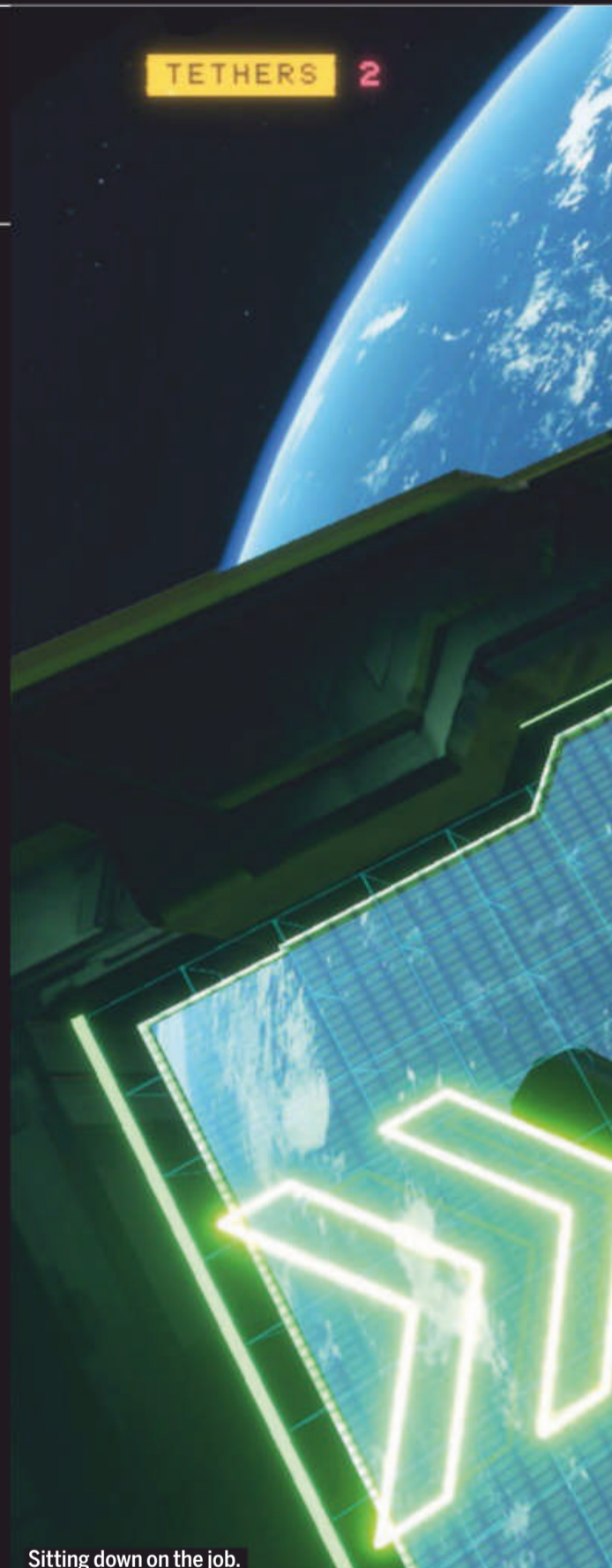


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Hardspace: Shipbreaker



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HARDSPACE: SHIPBREAKER

Heavy lifting is a joy in zero gravity

It's testament to *Hardspace: Shipbreaker's* mimicry of corporate legalese that, when the game presented me with an employment form, I ticked through all of the boxes with a familiar sense of impatient weariness. But in the process, I learned a valuable lesson about reading the small print.

Among the mandatory agreements – to end any and all relationships with workers unions, accept the health risks associated with exposure to a 'Van der Waals Field', and vote for Chancellor Chun Zhang in the next Pan-American Senate election – I absentmindedly ticked a box to skip basic training. And so my first hour with *Hardspace: Shipbreaker* was a violent introduction to zero-G workplace accidents: electrocution by cockpit terminal, self-immolation via industrial furnace, and baby's first reactor explosion.

One restart later, however, and I was orbiting the exterior of a Mackerel Station Hopper with ease, pulling chairs from the passenger compartment through a gaping hole in the hull using my electric lasso before punting them onto a nearby barge and collecting my scavenger's fee. Like a terms and conditions page, *Hardspace: Shipbreaker* appears impenetrable, but turns out to be a pleasure to fly through at speed.

As one of 124.8 million applicants to work at Lynx Salvage Station #42, you are an utterly disposable 'cutter', employed to pull apart spaceships and gut their insides

PLAYED IT

for parts. With \$500k to pay in debt, rent and utilities per day, you'll want to get at every last lightbulb for the extra cash.

BREAK UP

Given the volatile nature of the components, it's a role more akin to bomb disposal than a day at the recycling centre. If you're going to melt through an aluminium panel with a blowtorch, you better have accounted for any fuel tanks that may be waiting on the other side. You can gauge just how reckless you're being by listening to the breathing of your avatar as it resounds in your helmet, building from a regular nasal rhythm to erratic gasps and gulps for air. It's no wonder you need to return to base for O2 so often.

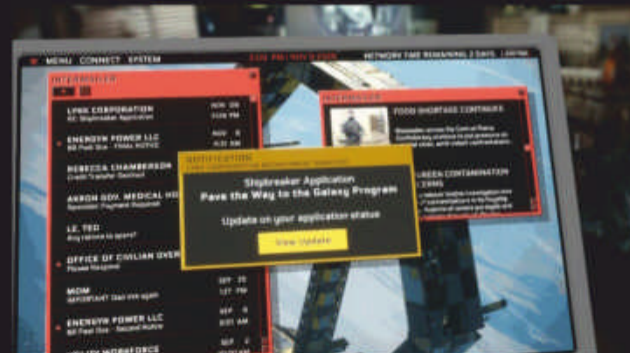
Recent updates have implemented a radial menu for tool selection, which is a boon given that *Hardspace: Shipbreaker* shines when played with the controller. Pushing in both thumbsticks to put the brakes on your thrusters is a tactile delight, as are the vibrations that ripple through your palms when pushing the throttle. Such polish rubs roughly up against problems with sound, which sometimes cuts out completely, and the occasional crash to desktop when flinging yourself with particular gusto across the deconstruction site. But any frustration is quickly soothed when you cut away the floor of a cargo cruiser and are treated to a clear view of the luminous blue planet below.

Early Access games tend to be developed mechanics-first, their developers understandably preoccupied with the fixes and new toys a constantly tuned-in audience demands. *Hardspace: Shipbreaker* is refreshingly different in that respect. That tutorial mishap aside, it actually has a cracking intro, reminiscent of the original *System Shock* in its brevity and depth of worldbuilding. When every hull you crack open hides data drives alluding to massive corporate skullduggery and personal intrusion, it's no stretch to imagine the 40-hour campaign Blackbird has promised.

For all its danger, there's quite a meditative calm to *Hardspace: Shipbreaker* that's hard to match. When I need to relax, I like to go to the place where I'm \$997,959,018 in debt.

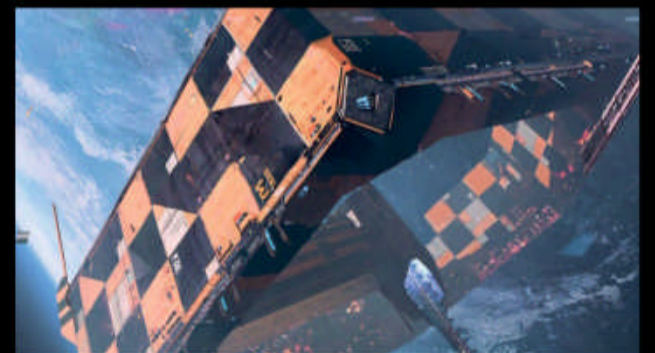
Jeremy Peel

Sitting down on the job.



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IT'S NO STRETCH TO IMAGINE THE 40 HOUR CAMPAIGN BLACKBIRD HAS PROMISED



Tainted Grail: Conquest

Out in the wilds you'll find treasure, optional fights, and even merchants ready to join your village.



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DEVELOPER
Awaken Realms Digital

PUBLISHER
In-house

LINK
bit.ly/3ioU6Gy

TAINED GRAIL: CONQUEST

A goat-man and the Grim Reaper walk into a bar...

Horror reimaginings of Arthurian legend seem to be surprisingly popular at the moment. Between this Early Access roguelike and last issue's cover star *King Arthur: Knight's Tale*, you might start to think that something about recent events has gotten developers thinking about how British legends getting corrupted into monstrous forms. Ahem.

PLAYED IT

Tainted Grail: Conquest has an odd legacy. It's based on a board game, though it's not a direct adaptation, merely borrowing the setting and a few gameplay concepts. It started life as an Early Access-friendly mode within in-development single-player RPG *Tainted Grail: Fall of Avalon* for testing that game's features, before growing in scope enough to be split off into its own standalone game.

And if any of that confused you, you'll definitely struggle to understand the set-up for its surreal grimdark setting, where the island of Avalon has become a



kind of nightmarish purgatory for wayward human souls. Reality is determined by your emotions, all of time is happening at once, and the only people who seem to know what's going on are a goat-man and the Grim Reaper.

AVALON SHOT

It's not a game that makes a great first impression. Get through all the exposition and you're treated to a 3D overworld ugly and awkward enough to make you wish they'd opted for a more abstract 2D presentation instead. But press on into its turn-based combat and you'll see a different side of *Conquest*.

The card-driven battles unashamedly evoke PC Gamer darling *Slay the Spire*, as does the roguelike structure and

I'VE HAD A BLAST MATCHING CARDS, SKILLS, RUNES, AND CLASS ABILITIES

on-the-fly deck-building. But it's testament to the strength of the strategy here that it's not an unflattering comparison.

Like *Slay the Spire's* deadly tower, Avalon is a deeply unfriendly place to explore, so the key to survival is not just clever use of your arsenal, but working towards combos that will allow you to outpace the monsters waiting ahead. It's the sort of game where when your deck comes together it feels like you've out-smarted the game, your set of cards acting like a custom-built cheatcode.

From a necromancer whose minion's deaths only spawn more minions, to a warrior who can throw out countless attacks by burning through her entire deck in a turn, I've had a blast matching cards, skills, runes, and class abilities into unstoppable engines of destruction. Though there's definitely room for improvement here in terms of clarity, balance, and presentation, it already feels like a fantastic framework for creativity. This is the sort of game that pretends to hate your guts while slyly giving you the tools to make you feel like a genius.

Robin Valentine

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Tom D'Saiz

Gloomhaven

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"We've got you surrounded" is something you should never say to a wizard.



NEED TO KNOW

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£19.50

DEVELOPER
Flaming Fowl Studios

PUBLISHER
Asmodee Digital

LINK
asmodee-digital.com

GLOOMHAVEN

The acclaimed fantasy board game steps onto PC's hex

When Lionhead crumbled, Flaming Fowl Studios was the first studio to emerge from the rubble, farting loudly to let the crowd of onlookers know that the spirit of *Fable* still lived. Its immediate priority was to release *Fable Fortune*, a CCG that had been in the works at Castle Molyneux.

With that project finished off – both in the sense that it came out and has already shut down – the team has moved onto another beloved licence: Gloomhaven, the cooperative board game. Faithful to the point of piety, Flaming Fowl's adaptation is a turn-based tactics adventure about clearing dungeons room by room. If it's underground, you're there, picking up loose change in the dark.

It does feel a little like a waste of ex-Lionhead talent: the studio's stated goal is to fleck strategy games with a "healthy dose of humour", and there's scant opportunity for that in *Gloomhaven's* self-serious fantasy setting. Flaming Fowl has fun on the periphery, with referential quest titles like *I Am Brute* and *Toss a Coin to your Hangman*, but at its core *Gloomhaven* is pretty straightforwardly earnest.

The original boxed campaign – all ten kilograms of it – will be fully digitised by the time of *Gloomhaven's* expected launch later this year. For now, the game is playable on Steam via a mode that procedurally generates parts of the adventure, allowing its developer to throw in new additions as it goes, like

December's smelly sewer biome. It works a treat, with a robust overworld structure that already enables you to build parties, hoard gold, and furnish your mercenaries with equipment. The broader goal is to restore trade routes in a region set upon by bandits and necromancers, and your safe haven in the gloom is a town named Demonsgate, which I suppose merits a bit of a dry laugh in itself.

Down on the board, combat takes the form of a lunging dance across the hexes with your skeletal adversaries. The primary concerns of positioning, range and initiative will be familiar to fans of PC tactics games, and *Gloomhaven* slots comfortably into the genre. But there are innovations: when hit, you can choose whether to lose health or burn action cards. Since a mercenary with no cards is removed from the game, you're effectively juggling two health bars.

As with many such tabletop adaptations, the reliance on decks initially feels fiddly and indirect – you can't cross a dungeon floor to open a chest, for instance, without picking complementary cards and playing them one after the other. But over time, you come to appreciate the self-sustained variety of designer Isaac Childres' system.

PLAYED IT

GLOOM TOWN

Since cards come in twos, even a familiar attack is usually paired with another action you hadn't planned. In a tough fight, you consider your cards from every angle, then apply them in an order that fits your situation. It's the simple satisfaction of a baby's shape-sorter toy, only with the complexity of a board game under it all.

I'm not sure I love the random damage modifiers, which make this game of murder maths less deterministic and harder to plan. But advanced players will know how to manipulate those too, working them into their calculations.

You can bet *Gloomhaven* veterans will be watching as this version hits the halfway point of its Early Access roadmap. In an era where tabletop sessions are at best risky and at worst illegal, a PC port of an acclaimed board game could give Flaming Fowl a ready audience, and the longevity it failed to find in *Fable Fortune*.

Jeremy Peel

YOU COME TO APPRECIATE THE SELF-SUSTAINED VARIETY OF ISAAC CHILDRES' SYSTEM

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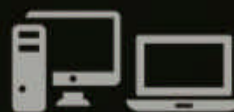
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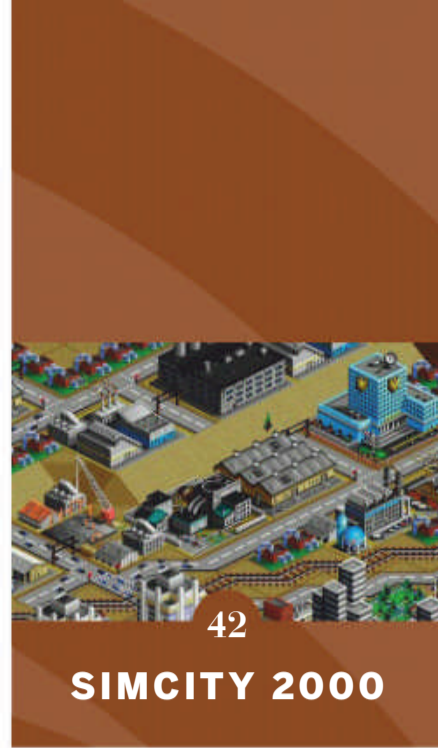
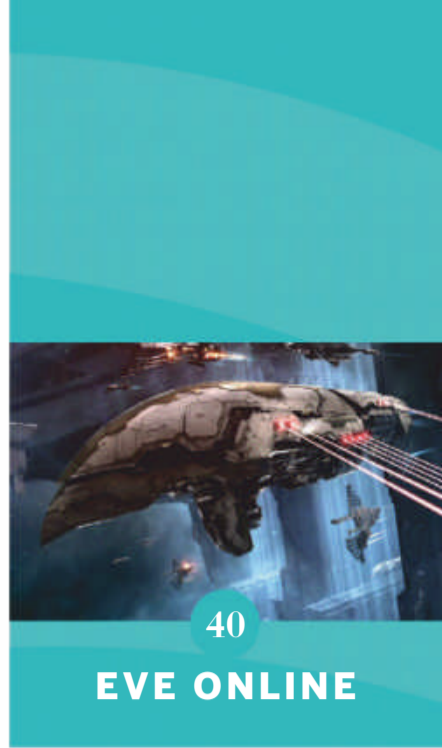
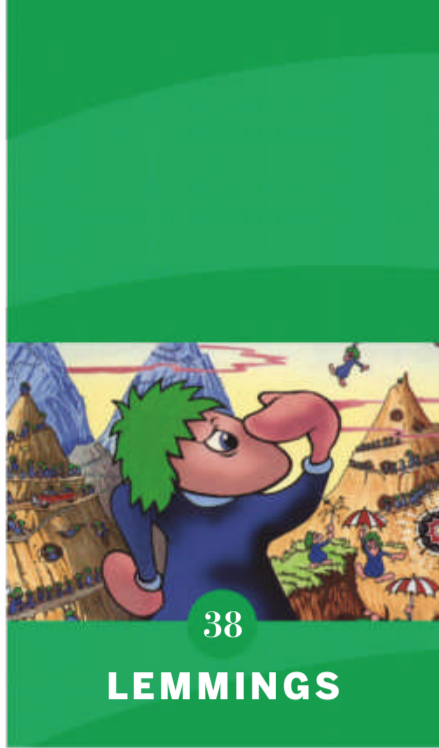
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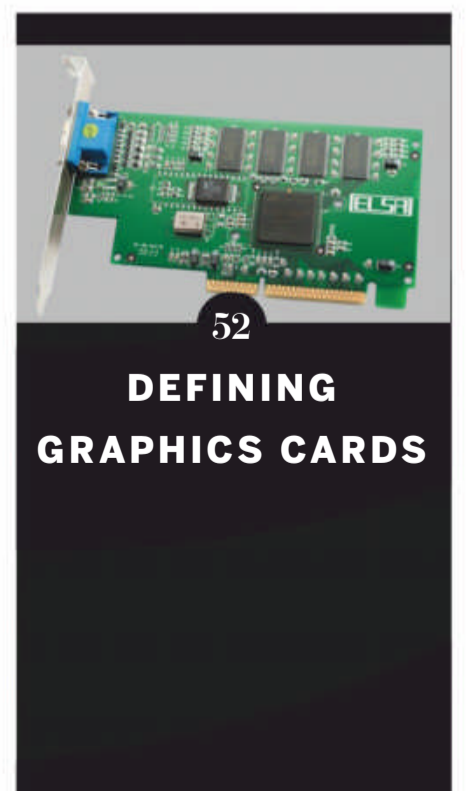
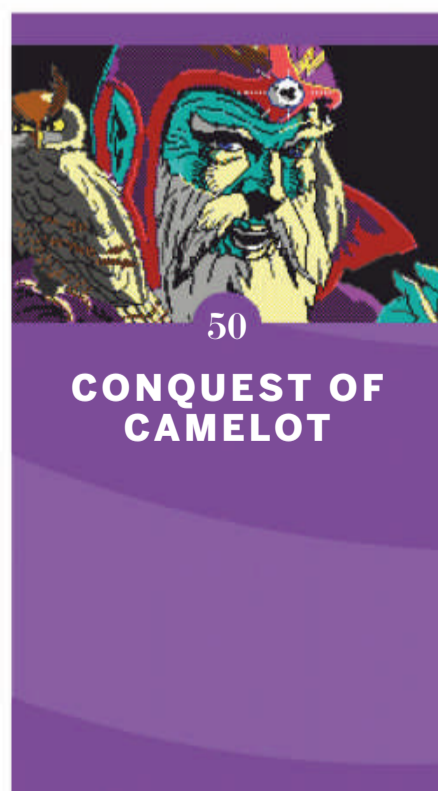
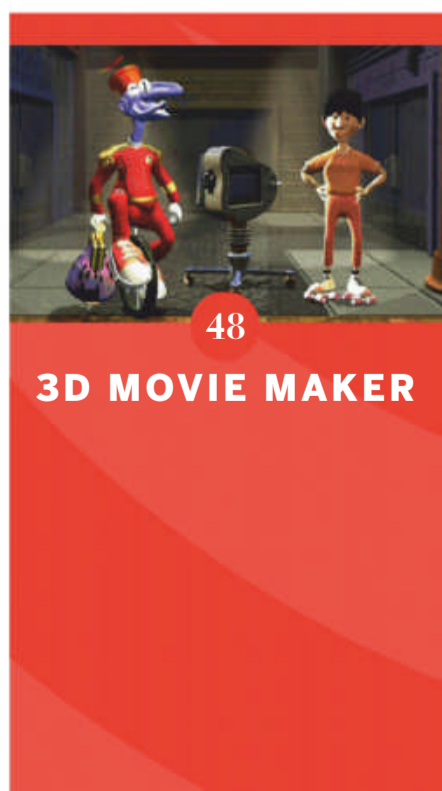
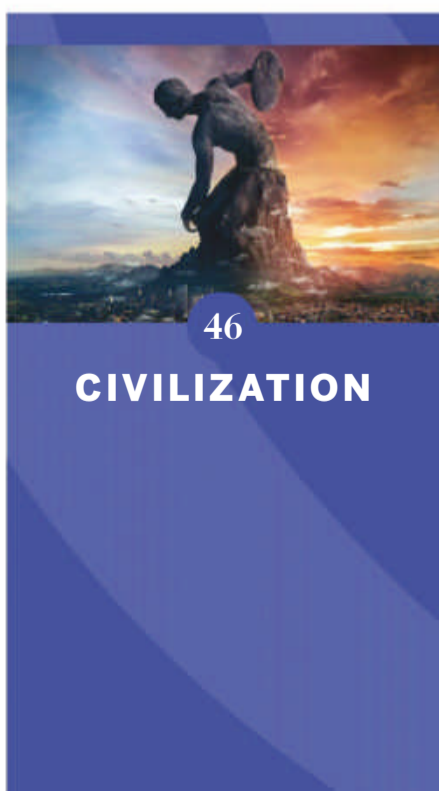
AWARD WINNING
SYSTEMS



PC GAMING

LEGENDS

Eight games that have defined PC gaming – and defined us as PC gamers



Plenty of games can claim greatness – whether acclaimed hits, or cult classics. Only a handful can claim to have changed the industry, and players, forever. Over the following pages are eight that hold that honour. Not only have they helped define PC gaming, they've defined us as PC gamers. And we're also celebrating the hardware that made them possible, with a look back on the graphics cards that shaped PC history.

36

HALF-LIFE 2



RAISING THE BAR

The subtle, hands-off storytelling of **HALF-LIFE 2** is still hard to beat. *By Andy Kelly*

The magic of *Half-Life 2* lies in how it tells its story. In most games developed in the early 2000s you're forced to endure endless exposition about the world and the state it's in – usually in the form of cutscenes. In *Half-Life 2*, a few scraps of old newspaper stuck to a notice board achieve the same goal; and in a much more evocative way. In the secret laboratory of eccentric scientist Isaac Kleiner, this entirely missable detail refers to a “seven hour war”, Earth surrendering to the invading Combine, and villain Wallace Breen being declared administrator of Earth.

It's everything you need to know in one unassuming texture file – but also, importantly, it leaves enough of the finer details out to let your imagination run wild. This is more effective than an elaborate, expensive cinematic showing the Combine invasion of Earth would ever be, and puts you on a level playing field with Gordon Freeman. Having just been yanked out of stasis by the G-Man, he knows as much as you about this

bleak, Orwellian nightmare world; that is, ‘not much’, which only adds to the unsettling mystery of how Earth ended up like this.

This kind of environmental storytelling continues throughout *Half-Life 2*, painting a more detailed picture of everything that happened while Freeman was on ice. And as you learn more about the invaders' infrastructure, the extent of their assault on the planet becomes chillingly clear. At several points in the game you catch glimpses of Stalkers; human bodies gruesomely retro-fitted with alien technology, turned into mindless slaves. Seeing one out of the corner of your eye is, again, more affecting than having someone sit you down and tell you everything about them.

FREE REIGN

Half-Life 2 is a game that plays to the strengths of the medium, using player agency as a way to tell a story in a more interesting, intimate way. It's also a masterclass in subtlety. When it's time to travel to Ravenholm, an abandoned town infested with headcrab zombies, all Alyx says, gravely, is, “We don't go to

Ravenholm.” And that's all it takes. That sentence is absolutely loaded with meaning, and it also makes your first tentative steps into the place scarier. What did she *mean* by that? Valve understands the power of holding back, that less is more, which is something that eludes many developers even now, 16 years later.

Of course, storytelling is just one part of the package. *Half-Life 2* is also a great FPS, with the gravity gun adding an improvisational feel to its firefights. Switching to this once revolutionary physics-manipulating weapon when you're backed into a corner, plucking a saw blade or radiator out of the level and transforming it into a deadly weapon, still feels incredible. The raid on Nova Prospekt, the brutal Combine prison, is tense and thrilling, and working with the resistance in City 17 towards the end of the game features some superb set-pieces.

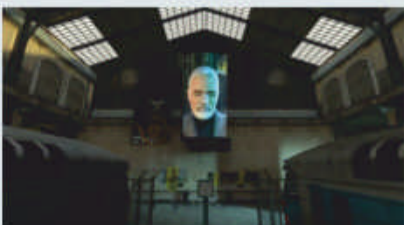
If you haven't played it for a while, you might wonder if the people who still eulogise *Half-Life 2* are half-remembering it through a mist of nostalgia. But play it and you realise that, although it has aged in some ways, it still feels like an important, landmark game. It still delivers as a first-person shooter, and the way it relays its story is still wonderfully subtle and restrained. It's also exciting to revisit when you consider that Valve may be falling back in love with the series. The end of VR prequel *Half-Life: Alyx* dramatically opens up the very real possibility of a *Half-Life 3*, teeing up a sequel I'd lost all hope of ever being made. ■

TOP LEFT: Freeman drives his junker of a car along Highway 17.

VALVE UNDERSTANDS THE POWER OF HOLDING BACK, THAT LESS IS MORE, WHICH IS SOMETHING THAT ELUDES MANY DEVELOPERS EVEN NOW



BIG CITY *Key locations in City 17*



TRAIN STATION

Freeman arrives in City 17 by train, meeting oppressed citizens and enslaved Vortigaunts, all watched over by the ever-present digitised mug of Wallace Breen, the human face of the Combine invasion force.



CITY SQUARE

Emerging from the train station, Freeman gets his first glimpse of the Citadel, the sinister headquarters of the Combine. The city's distinctive Eastern European architecture is especially prominent here too.



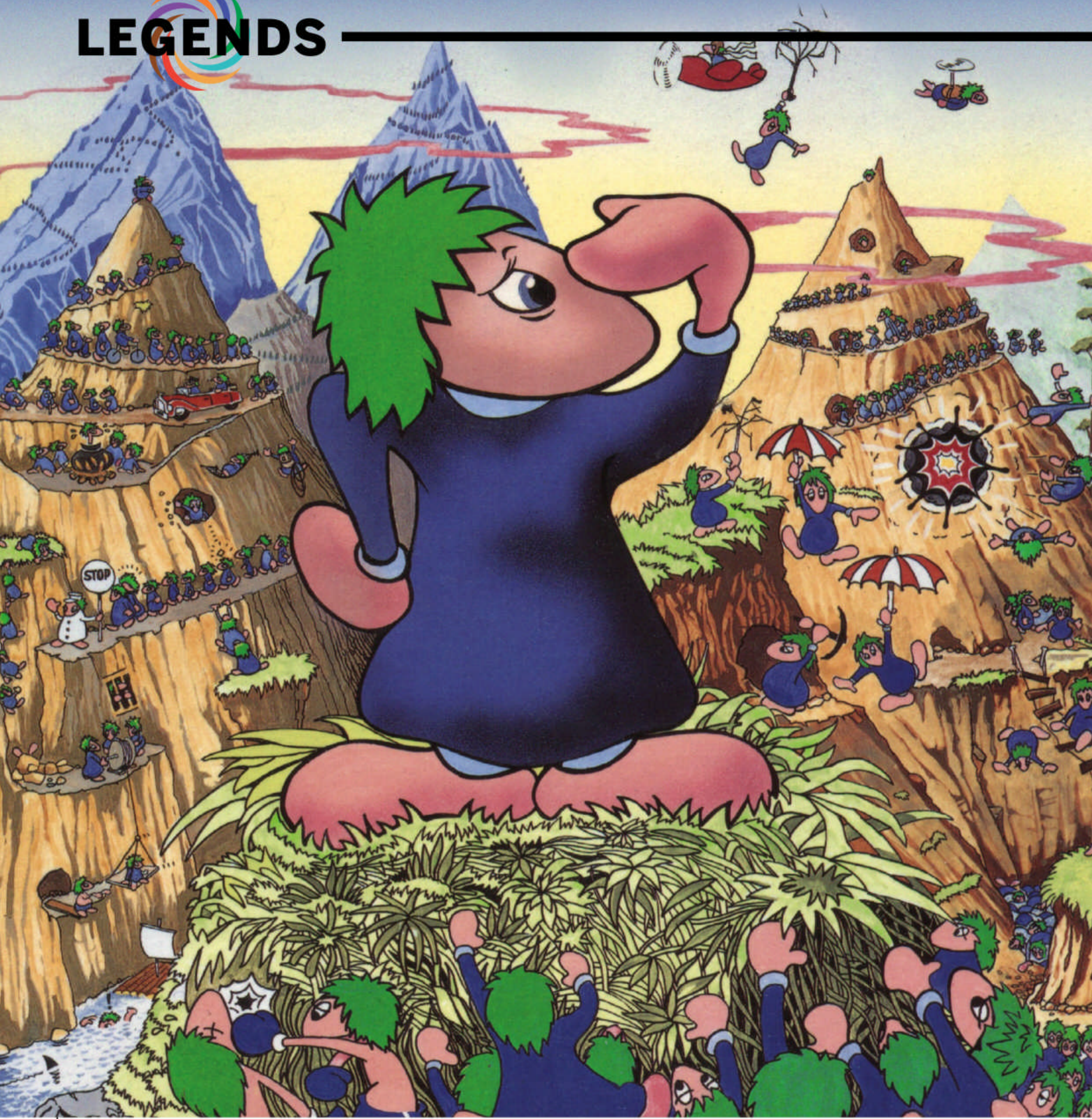
CITADEL

Freeman eventually makes his way into the Citadel, confronting Breen and his alien lackeys. Inside we see the Combine forces being created, including a production line of War of the Worlds-inspired Striders.



SECRET LAB

One of the few safe places in City 17. Here Freeman is reunited with Isaac Kleiner, a colleague from Black Mesa. And if you pay attention you'll learn a bit more about how the Combine conquered Earth.



FAR LEFT: The game began life as a single animated sprite created by DMA's Mike Dailly.

LEFT: *Lemmings* is one inspiration for a remote-controlled golem army in Terry Pratchett's *Interesting Times*.

FALLING IN LOVE

LEMMINGS still haunts my nightmares almost three decades later. *By Edwin Evans-Thirlwell*

The medieval historian St Bede – aka The Venerable Bede, which really ought to be a band name by now – once compared life to a sparrow’s flight through a banquet hall on a winter night: a moment of light and warmth, bookended by darkness. I sometimes like to think of DMA Design’s *Lemmings* as a modern reworking of this existential fable, with a couple of major differences. Firstly, it’s about stupid rodents rather than birds, and secondly, it unfolds in a kind of Brighton Pier version of hell, all novelty crystals and gold pillars set to unholy chiptune renditions of songs like *London Bridge is Falling Down*.

Unlike Bede’s sparrow, the lemmings need a bit of direction. They drop from a magic window and trundle

brainlessly left or right unless otherwise ordered. Your goal is to get them through this souvenir-stand underworld against the clock, by assigning skills such as digger or climber. On the other side of both the entrance and exit portals lies not wintry oblivion, but a heavenly vista of green slopes and blue skies.

If the moral of Bede’s fable is to savour every conscious moment, the moral of *Lemmings* seems to be that life is a nasty interlude full of spikes and lava pools, to be navigated as quickly as possible.

RUSH MODE

I was seven when I first played *Lemmings*, and it properly did a number on me. I was immediately panic-stricken at the thought of taking responsibility for creatures who are their own worst enemies – creatures who seemingly exist only to traumatise anybody with a

protective streak. But once I’d begun, I couldn’t let go. Who else, after all, was going to guide these hapless vermin back to their happily-ever-after? *Lemmings* was the game that taught me to empathise with make-believe entities, and I glimpse its mop-haired spectre in every management sim I play today.

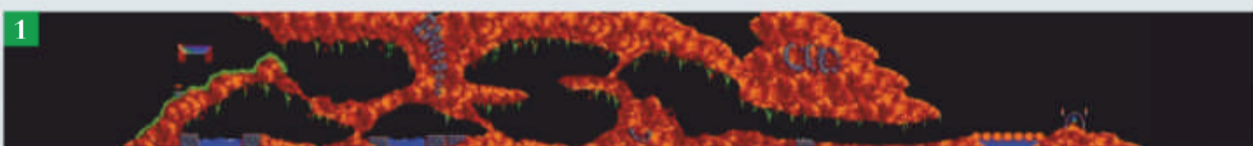
The game isn’t that difficult to begin with, but mistakes are easily made. Perhaps you’ve forgotten to set one lemming as a blocker, in order to box in the horde while you send out a lone builder to bridge a gap. Perhaps you’ve forgotten that there are only so many of each skill to go around: you can’t just make every last lemming a floater as they toddle off a cliff. Either way, any oversight transforms the level into a slaughterhouse line, with freshly

YOUR GOAL IS TO GET THEM THROUGH THIS SOUVENIR-STAND UNDERWORLD AGAINST THE CLOCK, BY ASSIGNING SKILLS

dropped lemmings dutifully repeating the errors of their siblings, death cries blending into a single, garbled scream. I’m aware there are worse ways to be introduced to the concept of dying, but try telling that to little infant Edwin, bawling his eyes out at the altar of a Macintosh Performa. Better yet, tell little infant Edwin that you can pick skills while the game is paused. Somehow I didn’t work that out until 1999.

The other terrible thing that *Lemmings* teaches you is that certain deaths are necessary. Many levels only require you to save a certain percentage, and some lemmings are difficult to retrieve once they’ve performed their allotted tasks. Blockers, especially, are the most tragic of lemmings, unable to resume walking once deployed unless you send a digger to undermine them. The game’s cruellest touch is that it requires you to kill any lemming that can’t be saved – individually or, when time is short, care of a big old nuke button. Condemned lemmings don’t go quietly into that good night. They shriek and clutch their skulls until they burst. DMA Design, of course, would go on to create *Grand Theft Auto* – a much bloodier game, but for my money, it’s actually nowhere near as harrowing. ■

WHITE WILDERNESS *Four of the absolute worst Lemming’s levels*



1 THE STEEL MINES OF KESSEL

Dig a path using the exploding lemmings but don’t kill more than 90%, and make sure you blow up any blockers that you’ve left behind.

2 HEAVEN CAN WAIT

You don’t have any blockers, so you’ll need to trap your lemmings in a pit while creating the route. And do it all in just under two minutes.

3 JUST A MINUTE (PART TWO)

Sixty seconds of frantic wrangling with diggers, bashers, and climbers. You need to hold back the crowd but you also can’t afford to dawdle.

4 SAVE ME!

You have to land a lemming on a ledge, then build a staircase and transform that lemming into a blocker, before the others walk off the edge to their deaths.

FOUND IN SPACE

How the terror and tenacity of **EVE ONLINE** changed my life. *By Steven Messner*

I'll never forget my first real fight against another player in *EVE Online* – it had taken me, a fresh-faced noobie at the time, almost a month to scrounge up the ISK to buy a beloved Catalyst destroyer, and now I was about to lose it fighting a player in a vastly more deadly assault frigate. As my shields evaporated in a single volley, I began shaking so severely from the adrenaline rush that I couldn't accurately use my mouse anymore.

Dying in *EVE Online* is intense. Unlike most other MMOs, where you can simply respawn with all your stuff and carry on with your quest, a destroyed ship is gone forever. That loss stings if you don't have the ISK to immediately purchase a replacement. But while I raged in the moment, those memories are some of the strongest I've had playing any PC game. It meant something to lose that ship. There were stakes beyond good and bad endings or plot twists triggered by dialogue choices. *EVE Online* was the first time I felt the consequences of my actions in a game. The emotional highs and lows that came as a result have defined not just how I think about PC games, but also my career.

SPACE TO GROW

So much of what I've come to love about PC gaming is present in *EVE Online*. It's complex and takes a lot of patience and persistence to understand. Players are given unparalleled freedom in deciding not only what they want to do, but how they fit into the greater *EVE* community, and it's a game that consistently rewards quick wits and clever strategising.

When I first started playing it back in 2012 on a 13-inch Macbook (forgive me), it was my first real

exposure to these kinds of PC games that just don't exist on consoles. I didn't know it at the time, but *EVE Online* was the beginning of my transformation into a PC gamer. Though I had always played games on PC, like *World of Warcraft* and multiplayer shooters, *EVE* was a gateway drug that led me to *Mount and Blade* and *Path of Exile* – intimidating and hopelessly complex games that feel almost infinite in their scope. These are now some of my most-played games of all time.

But *EVE Online* is also the one game that got me to where I am today as a senior reporter at PC Gamer. When I was 25 years old, I decided to make a wild pivot and chase my childhood dream of writing about videogames. And because I loved *EVE Online* and the wild space drama that erupts from it on an almost daily basis, I had a hunch other people might like those stories too. My first-ever pitch was to PC Gamer and it was about a band of ruthless murderers in *EVE*. My hunch was right, and my *EVE Online* articles helped establish me as a full-time freelance writer before joining PC Gamer. Since then, I've had the pleasure of writing about everything from *EVE Online*'s cunning pirates to how a scam turned into the game's greatest rescue mission. I've travelled to Iceland, Las Vegas, and Finland for these stories.

EVE Online is an MMO that transcends how I normally think about games and the people that play them. It's a weird alternate universe experienced only through the cockpit of ships that are typically only seen as small icons floating in space. But when those icons start shooting at each other, incredible stories of betrayal, loyalty and karma begin to materialise. I'm not being hyperbolic when I say living, hearing and telling those stories for the past decade has changed my life. ■

LIFE IN SPACE *Five career paths you can take in EVE Online*



PIRATE

Pros

- ✦ An exciting life of crime
- ✦ Fly fast, extremely powerful ships in small gangs
- ✦ Can get rich if you rob a wealthy player

Cons

- ✖ Being a criminal makes you a big target
- ✖ Can go long stretches without a good ambush
- ✖ Good ships are expensive

SOLDIER

Pros

- ✦ Get to fight alongside thousands of players
- ✦ Ships losses are often reimbursed by your alliance
- ✦ Easy to make friends with your teammates

Cons

- ✖ Battles sometimes last up to 16 hours or longer
- ✖ Bureaucracy can be annoying



MERCHANT

Pros

- ✦ Can play whenever you want
- ✦ Can become outrageously wealthy with some effort
- ✦ Not many risks

Cons

- ✖ You'll definitely need to make a spreadsheet
- ✖ Kind of dull career
- ✖ You'll need to babysit market orders in order to beat out competition

WORMHOLER

Pros

- ✦ Explore EVE's scariest, most dangerous regions of space
- ✦ Often dragged into thrilling games of cat and mouse
- ✦ Can work together in small groups and make big bucks

Cons

- ✖ Steep learning curve and extremely dangerous
- ✖ Always have to be paying attention to surroundings



EXPLORER

Pros

- ✦ Solo-friendly but can still make a lot of money
- ✦ Get to sneak into hostile territory and avoid players
- ✦ Easy to get into

Cons

- ✖ Can go long stretches without making much money
- ✖ Have to be paying attention at all times to avoid enemy ambushes

SO MUCH OF WHAT
I'VE COME TO LOVE
ABOUT PC GAMING
IS PRESENT IN
EVE ONLINE

BUILD ME UP

The joys of creation and destruction in **SIMCITY 2000**.

By Chris Livingston

I don't think city-building games, despite the perspective of looking down on all the tiny people and making decisions that can bring them happiness or ruin their lives, really make me feel like a god. I usually feel more like a Peeping Tom mixed with an exasperated parent. I delight in just spying on my citizens to see what they're up to, and getting annoyed when they need something from me. "Fine, I'll build you a hospital! Now stop bloody complaining all of the time so I can get back to

blissfully squinting at all the little cars driving around."

SimCity 2000 was a revelation to me. I'd played the original *SimCity*, but *SimCity 2000* swapped from the top-down view and 2D graphics to an isometric perspective, which made my little cities feel absolutely alive and real. There was so much detail packed into its pixels, giving every tiny house and park and skyscraper its own personality. In a few days I'd know my virtual city's neighbourhoods and roads better than the one I actually lived in. After building an airport, I could happily

watch the teensy, tiny aeroplanes inching across the screen for hours. I always rushed to build seaports just so a little boat would appear in the waterways. It was like a live feed from a webcam pointed at a real metropolis, long before live webcams were even a thing. *SimCity 2000* was one of the first PC games to really sink its hooks into me, and I'd often eat dinner in front of the screen, not even playing but just observing.

And when I wasn't just staring at my city, there was so much to fiddle with. Taxes to increase when I ran into money troubles, underground views for laying down utility pipes and subway lines, and graphs showing various attributes of my city that... well, I probably never really understood all the graphs. But at least they were there if I wanted to look at them.

And there was just something so mesmerising about peering down at the little world I was building, seeing the cars on the roads I built obeying the little traffic lights, experimenting with city ordinances, watching the city slowly grow until it was so incredibly big I'd just about run out of room. And then I'd start a new one.

SMASH THE SYSTEM

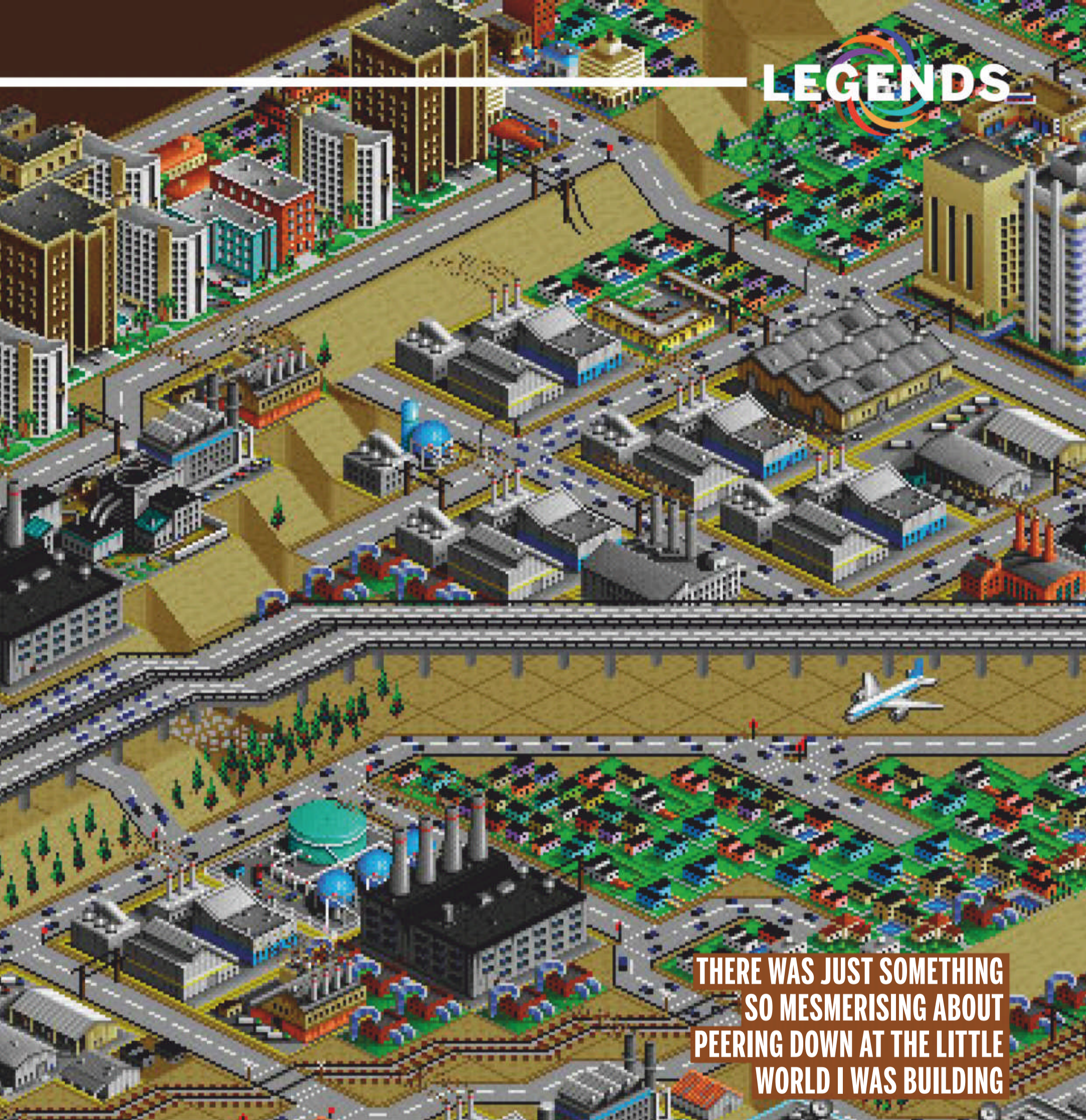
It was also extremely rare at the time: a game that had a beginning but no real ending, with no genuine win-state, or even a way to let you know if you should give up and start over or keep working on the city you had before you. It was open-ended, and you could build and manage your city indefinitely. Once I even left my game running overnight while I slept, just to see if it could sustain itself. I'm pretty sure it was in bad shape the next morning.

There was also the satisfaction that comes along with building something beautiful – knocking it down so I



LEFT: I wouldn't have a water shortage if you people would drink seawater.

RIGHT: I hate to raise taxes for the 75th time in a row. But I'm gonna.



THERE WAS JUST SOMETHING SO MESMERISING ABOUT PEERING DOWN AT THE LITTLE WORLD I WAS BUILDING

SIM-OFFS *SimCity 2000's many spin-offs*



SIMCOPTER
Players could import *SimCity 2000* cities into the game and fly around in them – and it was the first time gibberish language Simlish was used.



STREETS OF SIMCITY
Similar to *SimCopter*, but for cars: you could drive around in your *SimCity 2000* cities. You could also, weirdly, have car-based deathmatches with friends.



SIMHEALTH
A game simulating then-President Bill Clinton's healthcare reform policies. Ironically, perhaps, it was DOA, because who wants to simulate that?

could try to rebuild it again. Disasters could occur, with anything from earthquakes to plane crashes to alien attacks, but I could launch them myself, too, if I wanted a little extra challenge or if my city was humming along so nicely I'd just gotten a bit bored. That's the danger of including a disaster menu at the top of the screen. It's impossible not to click on it once in a while. Boom. There's a flood or tornado or a nuclear accident. Hmm, maybe city builder games do make me feel like some sort of god after all, and not a very nice one at that. ■

BROUGHT 2 LIFE

How **LEFT 4 DEAD** cured a toxic LAN environment.

By James Davenport

Left 4 Dead represented a turning point in how I socialise through games. In 2008, LAN parties were still around and I had a good group I'd play games with at my old IT gig at the University of Montana. We'd take over the office after-hours and run through a list of custom *Warcraft III* games (a lot of the original *DotA* before I realised what a mistake I was making), some *Quake* and *Unreal*, *Counter-Strike* and the like. The common thread: all competitive. Worse, so was everyone in the room. Things got heated, and after a lifetime of football and wrestling coaches teaching me how to boil blood, I shut down the moment someone took a game too seriously. I still do.

Left 4 Dead changed the mood completely. We went in on a few of those early four-packs and spread

them around. No one was particularly excited about *Left 4 Dead*, but it was a Valve game so we had to give it a go. We didn't play anything else for the whole semester.

We started inviting more people to game nights because working together to survive a zombie apocalypse was a far more appealing activity than getting wiped by Mike in every game ever. Enough people of varying skill levels would show up to get a few groups going, each dancing with the AI director at their own lovely rhythm, bouncing between despair and hope. The screaming in the office shifted from anger to a chorus of yelping barely discernible as calls for help and ensuing thank-yous. Rather than end each session deflated, saying nothing and shambling off to our dorms, we'd stick around or walk somewhere together, maybe get food, breaking down a dramatic standoff at Dead Air's refuelling finale, or how



LEFT: All these zombies could use a hug and some words of affirmation.



THE DINGY BASEMENT IT OFFICE LIT UP WITH WHOOPING AND BACK CLAPS LIKE A DAMN MEAD HALL

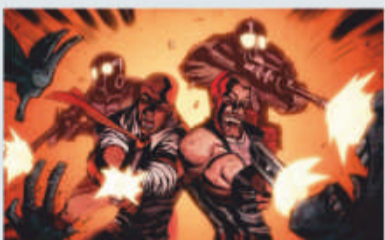
BELOW: Not what you wanna see when you're on your lonesome.

BOTTOM: A collective 'ooooh' from the room with every pipe bomb.



LORE 4 READ

Some of the best comics based on Valve's excellent games



L4D
The Sacrifice, a story that ties *L4D* and its sequel together.

l4d.com/comic



TEAM FORTRESS 2
Read the catch-up then check out Ring of Fired.

teamfortress.com/comics



PORTAL
Lab Rat tells the story of a man living in the walls of Aperture Science.

thinkwithportals.com/comic

basement IT office lit up with whooping and back claps like a damn mead hall. God I miss it.

LAN 4 DEAD

It's odd, seeing the LAN culture fade so quickly after one of the best LAN games I'd ever played was released. Forces beyond our little IT office's control, I suppose. But it's OK. Sometimes we'll manage to get a fragment of the group together for some modded nightmare run of a custom *L4D2* level, Teletubby hordes chasing us through Mario's palace or something else normal like that. And with *Back 4 Blood* on the horizon, old text threads are creaking back into

everything nearly went to shit in Blood Harvest's cornfield sprint.

After mastering the campaigns, we entertained the idea of trying out the versus mode and, yeah, that had me worried. See above. Yelling. Fragility. I tensed up at the thought, but *Left 4 Dead's* versus mode never dipped back into that volatile competitive mood. Coordinating the

perfect Smoker pull and Hunter pin combo to split up the survivors always carried more of a pranking-your-pals energy than any spectre-of-my-disappointed-dad vibes. Versus was cunning and playful, hewing closer to hide-and-seek than the pure reflex-driven play of most competitive shooters. We stayed jubilant and friendly. The dingy

motion. I wonder if we'd be so adamant about keeping in touch if we kept playing *Quake* and *DotA*, pissing the bed with every bad game. Would I even lament the slow death of LAN, or would it be a relief to me?

Left 4 Dead made finding positive social connections in games a guiding principle for me, something I take into consideration with every multiplayer experience. Some genre fiction paved an avenue for amazing friendships. How great is that? And, yeah, we'll never be in the same room together again, but that's OK. A lobby's a lobby. ■

THE GREATEST INFLUENCER

PC gaming would look very different without **CIVILIZATION**. *By Fraser Brown*

I have no idea where we'd be without *Sid Meier's Civilization*. Its influence has been an overwhelming constant for decades, defining generations of strategy games and developers. If Sid Meier and Bruce Shelley hadn't decided to let Napoleon, Montezuma, and Alexander the Great duke it out, swallowing up the world and dropping nukes on each other, a huge chunk of gaming history would never have happened.

Turn-based strategy existed long before *Civ*, but it's *Civ's* brand of turn-based strategy that became the model that most of the genre ended up following. It's not just 4X games that owe almost everything to *Civ*. You can't help but stumble across its DNA everywhere, whether you're playing *Crusader Kings*, *Total War*, or *Age of Empires*, which dreamed of being a real-time *Civ*.

It just kept setting the standard, over and over, with each new release. Wherever you are in the gaming timeline, there's a good *Civ* to play. Throughout almost my entire life, *Civ's* been there, beckoning me to take one more turn. And it's always recognisable. You always know what you're getting with *Civ*. That doesn't mean it's immune to changes, and

each team has left their own mark on the series, but it always maintains that comforting familiarity.

Meier's name is still in the title and he continues to oversee the series to this day, which is why it can be hard to separate the individual games from *Civ's* long history. But it's not just Meier's legacy. Every single *Civ* has its own designer, and the team has changed over the years. Huge shifts have occurred due to their vision. And then each new designer builds on it, so that they're adding to this collaboration that's been going on for longer than a lot of its players have been alive.

TIME PORTAL

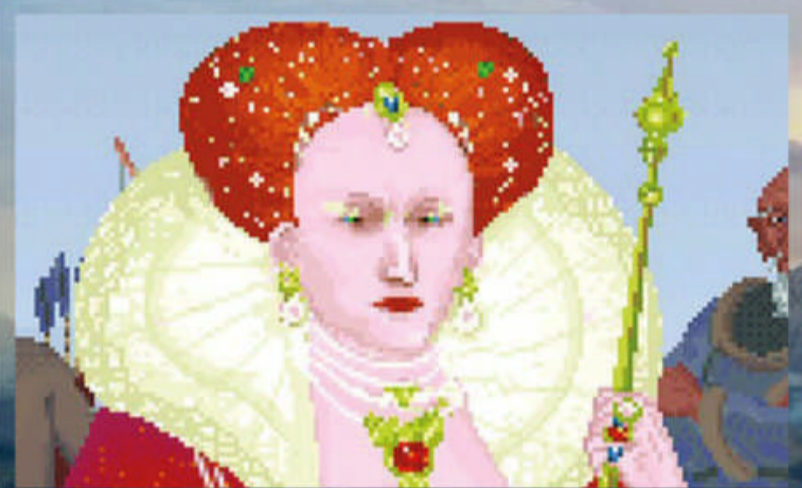
When you're playing *Civ VI*, you're also playing every *Civ* that came before it, and through all the changes that original design philosophy is still apparent. A focus on exploration and discovery has been with the series from the start, highlighting the achievements of humanity and not just the conflicts, and letting you win the game not just through conquest but by leaving Earth and travelling to the stars. It's ultimately an optimistic series, and that optimism proved to be infectious. Even *Total War*, a series all about huge armies colliding, lets you go down the diplomatic route, conquering the world by making massive alliances.

Civ might seem conservative 30 years on, but in 1991 it seemed wildly ambitious. Meier and Shelley's previous game was *Railroad Tycoon*, and the leap from managing a railroad company to being the immortal ruler of a global empire was pretty big. "We were young, and we had no fear," Meier told me in an interview a few years ago. It was an experiment. Things like using squares instead of hexes and making it turn-based instead of real-time weren't made right away, instead being born out of a desire to make this complex game more accessible.

Would I recommend the first game now? Maybe if you want a trip back through gaming's past. But you could instead play the much flashier *Civ VI*. Or, if you prefer squares over hexes, you can't go wrong with some *Civ IV*. And you'll still see what Meier, Shelley and Microprose were trying to create in 1991. Other developers are still trying to find their own *Civs*, like Mohawk Games' *Old World* and Amplitude's *Humankind*. At this point, the only way *Civ* will vanish is if actual human civilisation perishes. ■

BELOW: Maps were a bit simpler back in 1991.

BOTTOM: Your majesty, please don't nuke us.



A BRIEF HISTORY OF CIVILIZATION 30 years of wonders and wars

					
CIVILIZATION 1991 The one that started it all.	CIVILIZATION II 1996 The one with the animated emissaries.	CIVILIZATION III 2001 The cultured one.	CIVILIZATION IV 2005 Civilization: The Next Generation.	CIVILIZATION V 2010 The rebel that introduced hexes.	CIVILIZATION VI 2016 The one that made cities huge.

**WHEN YOU'RE
PLAYING CIV VI,
YOU'RE ALSO
PLAYING EVERY CIV
THAT CAME BEFORE IT**



ABOVE: Even in a fantasy world, TVs in the '90s were bulky.

LEFT: The ugly clothing patterns probably looked better on a CRT display (but not much).

RIGHT: The UFO prop got a lot of use in my productions.

HOLLYWOOD DREAMS

Pretending to be Pixar in **3D MOVIE MAKER**, Microsoft's weird 1995 animation studio for kids. *By Tyler Wilde*

Today's PC gamers are constantly feeding YouTube and Twitch with game footage, but back in 1995, capturing our screens was hardly thought of. Though even then there existed seeds of 2000s machinima. One such seed was 3D Movie Maker, a program that empowered kids to spend afternoons animating car crashes and alien abductions. It's one of Microsoft's best bits of '90s software, recognising the potential for real-time 3D rendering as a creative tool. It's also bizarre.

There was an idea back in the '90s that modern software should map its functions onto the most obvious metaphors possible. In Microsoft Bob, for instance, programs were organised into the rooms of a house. PC Gamer's '90s demo discs similarly featured adventure game-style interfaces. These virtual spaces couldn't have boring old tutorials – Turing and Asimov promised artificial intelligence, not tooltips – so they were augmented with chatty characters such as a cartoon dog, our own Coconut Monkey, and the infamous Clippy from Microsoft

Office. 3D Movie Maker had a guide, too, but since it was for kids and this was the '90s, he was a horrible blue guy with goat pupils that ran perpendicular to each other. He was a real nightmare, McZee.

McZee's antics – riding a shopping cart down roller coaster tracks, turning into a slice of cheesecake – illustrate why the '90s holds such a monopoly on the words 'wacky' and 'zany'. He guided users around a movie studio, finally leading to the interface where you could make your own movies with props and characters as garish as he was. The models were clearly influenced by American cartoons of the time, such as Rugrats and Rocko's Modern Life, and that was good enough for ten-year-old me. (A Nickelodeon-themed version of the software released in 1996.)

MOVIE MAGIC

If I knew nothing of 3D Movie Maker and you asked me to imagine what a 3D animation program for kids might have been like in 1995, I'd probably assume that it was a proto-*Garry's Mod* disaster with impossible controls. On the contrary, this was a brilliant piece of software. It

simplified 3D animation such that kids could create surprisingly sophisticated scenes and even their own audio if they had a microphone.

To animate a character walking, you would add the character to the scene, select the walking action, and then click and drag them along the floor to record a path. You could then scrub back to the start of the scene and do the same to another character or prop, layering the movie with animations. It was in 3D Movie Maker that I first got a sense of what a digital animation and video editing timeline was, which I'd carry into the embarrassingly bad games I made with Adobe Flash, the software used for so much vector animation in the late '90s and 2000s.

Once you made a video in 3D Movie Maker, there wasn't much to

ONCE YOU MADE A VIDEO IN 3D MOVIE MAKER, THERE WASN'T MUCH TO DO WITH IT OTHER THAN SHOW YOUR FAMILY AND FRIENDS



do with it other than show your family and friends. It was a toy, more or less, but also a peek at the future. At the time, we were still crudely editing home movies with dual-deck VCRs (MiniDV was a new format), but it was becoming clear that personal computers were one day going to put amateur creators – filmmakers, animators, musicians, game designers – on the same playing field as professionals. 3D Movie Maker wasn't a game itself, per se, but it was a vision of entertainment software as a creative tool, as opposed to a one-way fun pipe, and that is very PC gaming. ■



BREAKOUT ROLES

3D Movie Maker featured some big debuts



G-MAN
McZee's voice actor, Michael Shapiro, went on to play Gordon Freeman's employer in *Half-Life*.



COMIC SANS
Comic Sans debuted in 3D Movie Maker. It was actually designed for Microsoft Bob, but wasn't ready in time.



BONGO
Bongo is 3D Movie Maker's most recognisable actor, having appeared in the demo version.

CROWN JEWEL

CONQUESTS OF CAMELOT proved Sierra adventure games could grow beyond goofy parody. *By Wes Fenlon*

Conquests of Camelot introduced me to the merciless difficulty of old Sierra point-and-click adventures just a few minutes in. As King Arthur, I filled my purse with coin in preparation for a long journey to find the Holy Grail, picked up a magical lodestone from Merlin to guide me, and gave Guinevere a kiss before heading out the gates of Camelot – or trying to. The castle gate fell onto my head as I rode under it, crushing me to death.

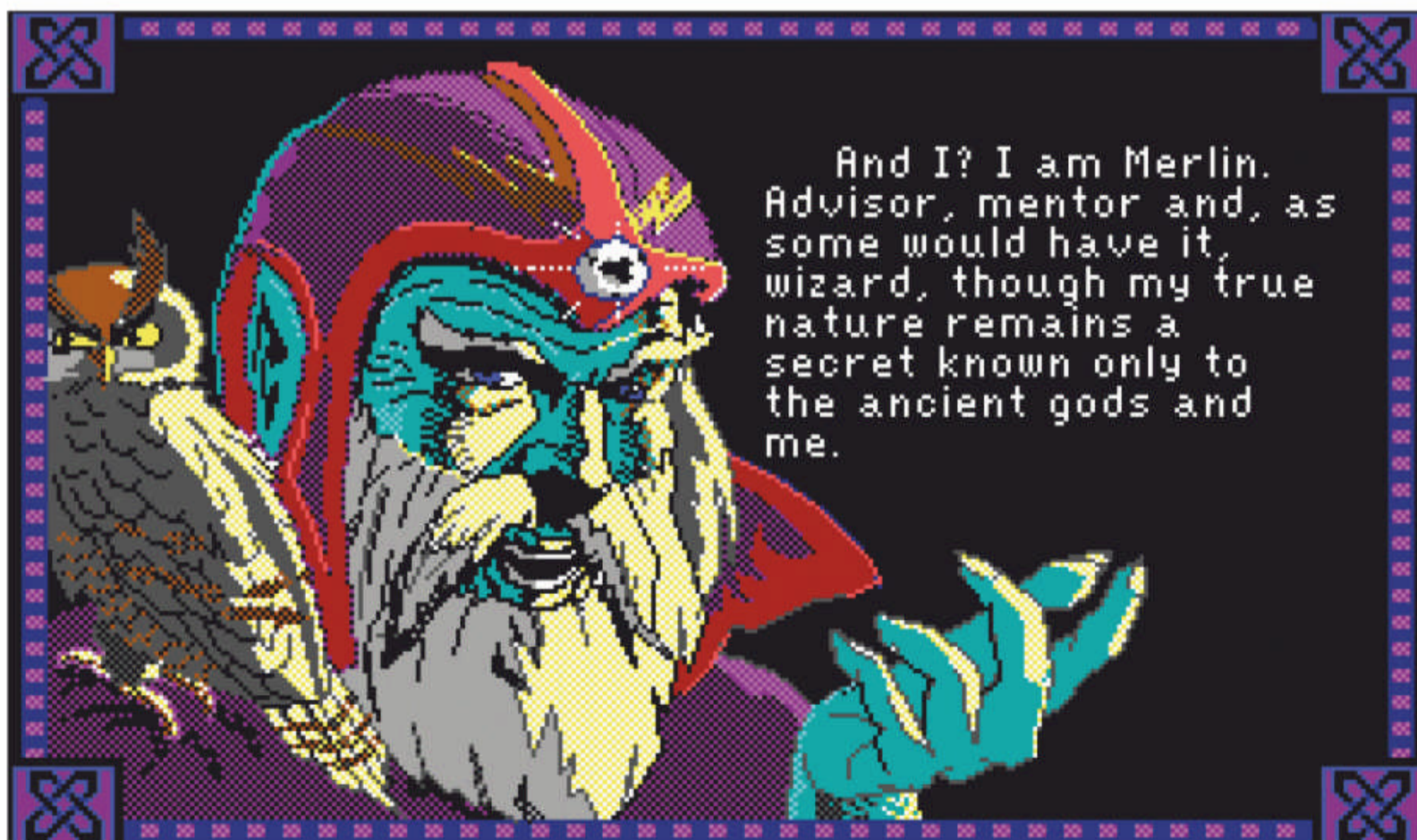
“It is terribly unwise to start a sacred mission without the blessings of the gods,” *Conquests of Camelot* admonished. Later I’d be gored by a wild boar, skewered on the lance of the Black Knight, and fall through thin ice, freezing to death. As in most of Sierra’s adventure games, surviving to see the end of *Conquests of*

Camelot was a real challenge. Its puzzles were beyond my ten-year-old brain, but I didn’t care – getting to be King Arthur made *Conquests of Camelot* as mystical an object to me as the Grail itself.

A BUSY LIFE IN CAMELOT

By the late ’80s Sierra had expanded beyond *King’s Quest* and *Space Quest* to other adventure series like *Leisure Suit Larry* and *Police Quest*, but this game felt like a step towards maturity. Sierra hired Christy Marx, head writer of the cartoon *Jem* and the *Holograms*, who had no experience designing games but a long list of cartoons and comics behind her. Undaunted by that inexperience, Marx threw herself into research and wrote a game that even today feels unusually rich and devoted to its source material.

As a kid this seemed like the definitive Arthur story to me, an



LEFT: Is this the most badass Merlin has ever looked?



IT AMBITIOUSLY TRIED TO CAPTURE EVERYTHING THAT WOULD GO INTO A CLASSIC ARTHURIAN QUEST



CONQUESTS OF THE LONGBOW



A year after *Camelot*, Christy Marx wrote and directed a follow-up adventure about Robin Hood and his merry men. *Longbow* was widely

praised as an even better game. It smoothed over some of *Camelot*'s flaws, like its action scenes, trading them for less-clunky archery. Most notable, though, was the new art direction. *Camelot* was criticised in 1990 for looking dated compared to other contemporary adventures. *Longbow*, released just a year later in 1991, is both more detailed and more expressionist. Other than the low resolution, the art still looks great today.



adventure to get lost in once I'd worn out my tape of Disney's *The Sword in the Stone*. I didn't read *The Once and Future King* until years later, so *Conquests of Camelot* was my main introduction to knights Gawain and Lancelot and the legend of the Grail. Marx's writing has a classical flavour to it, more approachable than TH White's novel but still steeped in a bit of Ye Olde English. It's not tedious like *Police Quest* or as silly as most of Sierra's other adventures but still has a wry streak, like the text parser asking "Your bidding, M'Lord".

Conquests of Camelot ambitiously tried to capture everything that would go into a classic Arthurian quest, including a jousting contest, a sword fight against a mighty Saracen, and magic riddles. The action scenes were as clunky and frustrating as you'd expect from an adventure game in 1990, but I didn't know any better at the time – and neither did Sierra, really, which had only released one game in the *Quest for Glory* series at that point.

Thirty years later *Conquests of Camelot* may look rudimentary, and it sadly never got a VGA upgrade like many of Sierra's other early adventures. But it was one of my most formative PC gaming experiences, and not just because it taught me to save constantly. My dad and I played it together, and for me it ignited a passion for games with storytelling and puzzles before I understood adventure games were a defined genre. Years later, when he upgraded the family PC to a Pentium, I got an IBM 486 of my very own and spent hours playing LucasArts adventures like *Sam & Max* and *Indiana Jones & the Fate of Atlantis*.

Camelot also taught me that people went onto the internet and wrote FAQs with the answers to puzzles I could never solve myself. I printed out a guide and followed it to lead Arthur through Jerusalem and, at long last, claim the Holy Grail. The lesson about prayer didn't stick, though. I'm still a heathen – I just know not to trust castle gates. ■

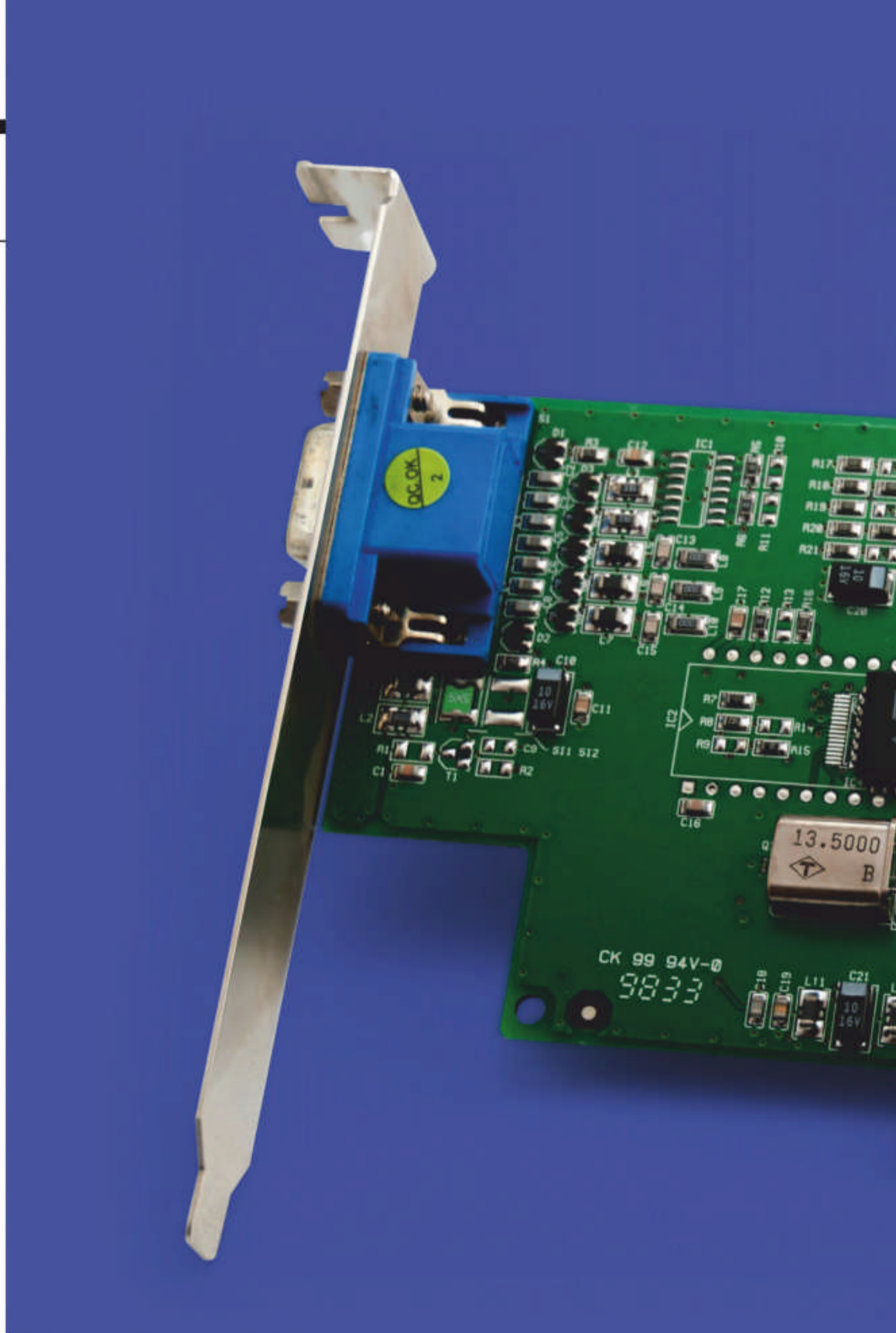
TOP: Wonder how Lancelot got into this predicament...

PIXEL PUSHERS PAST

The graphics cards that helped define PC gaming. *By Jacob Ridley*

It's easy to forget about where we came from in PC gaming, especially when we're arguing over gigabytes of memory and teraflops of performance. But there's actually a lot that we can glean from the annals of GPU history – the colossal leaps in power that GPUs have taken in under 25 years goes some way to explaining why today's top graphics card costs \$1,499.

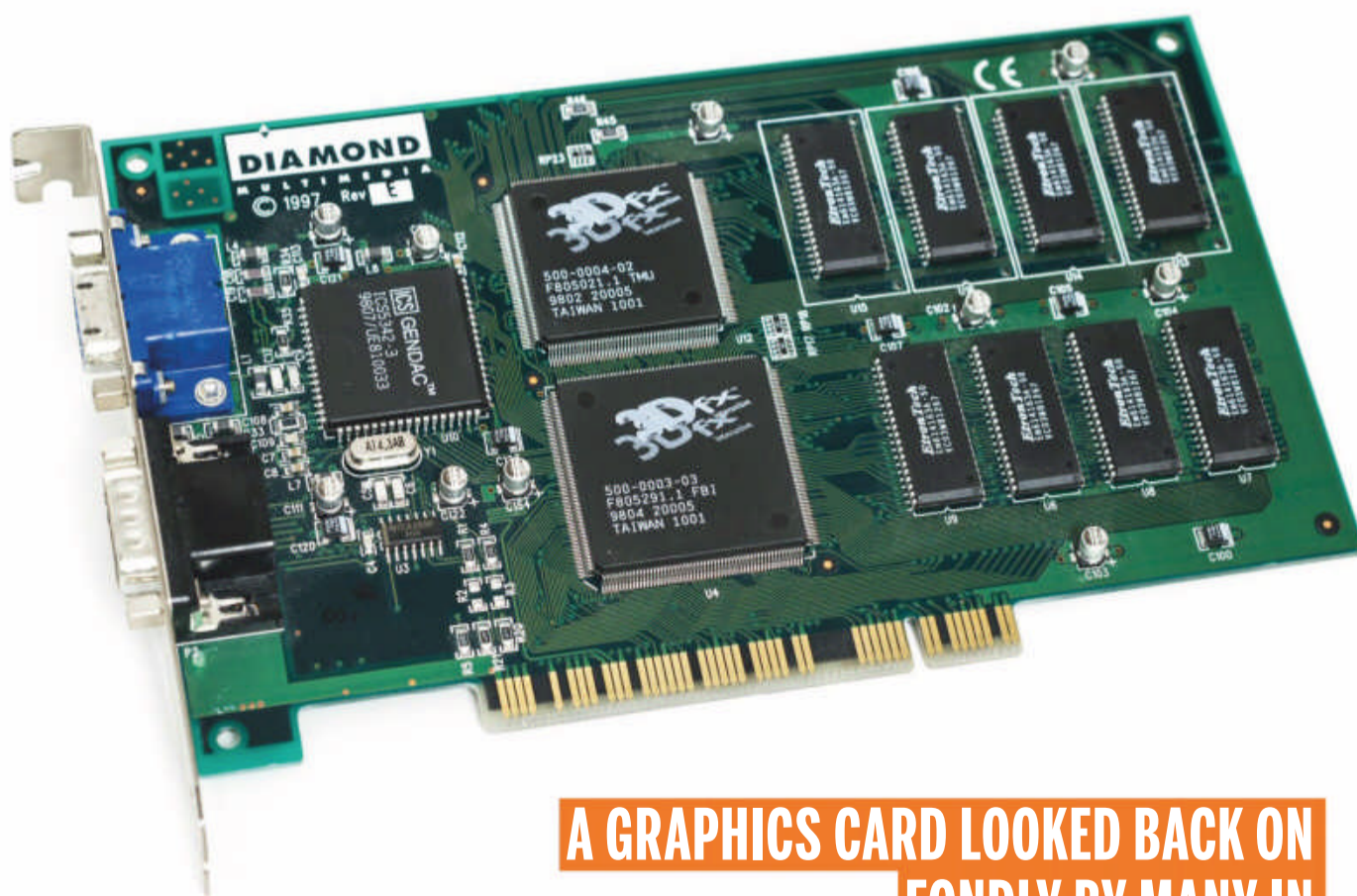
You have to walk before you can run, and there were many attempts to nail an image resolution of just 800x600 before anyone could dream up the pixel count required for the latest games at 4K. Yet you'd also be surprised by just how many features so prevalent in modern GPUs were first introduced back at the dawn of the industry. But let's start right at the beginning – when active cooling was optional and there were chips aplenty.



3dfx Voodoo

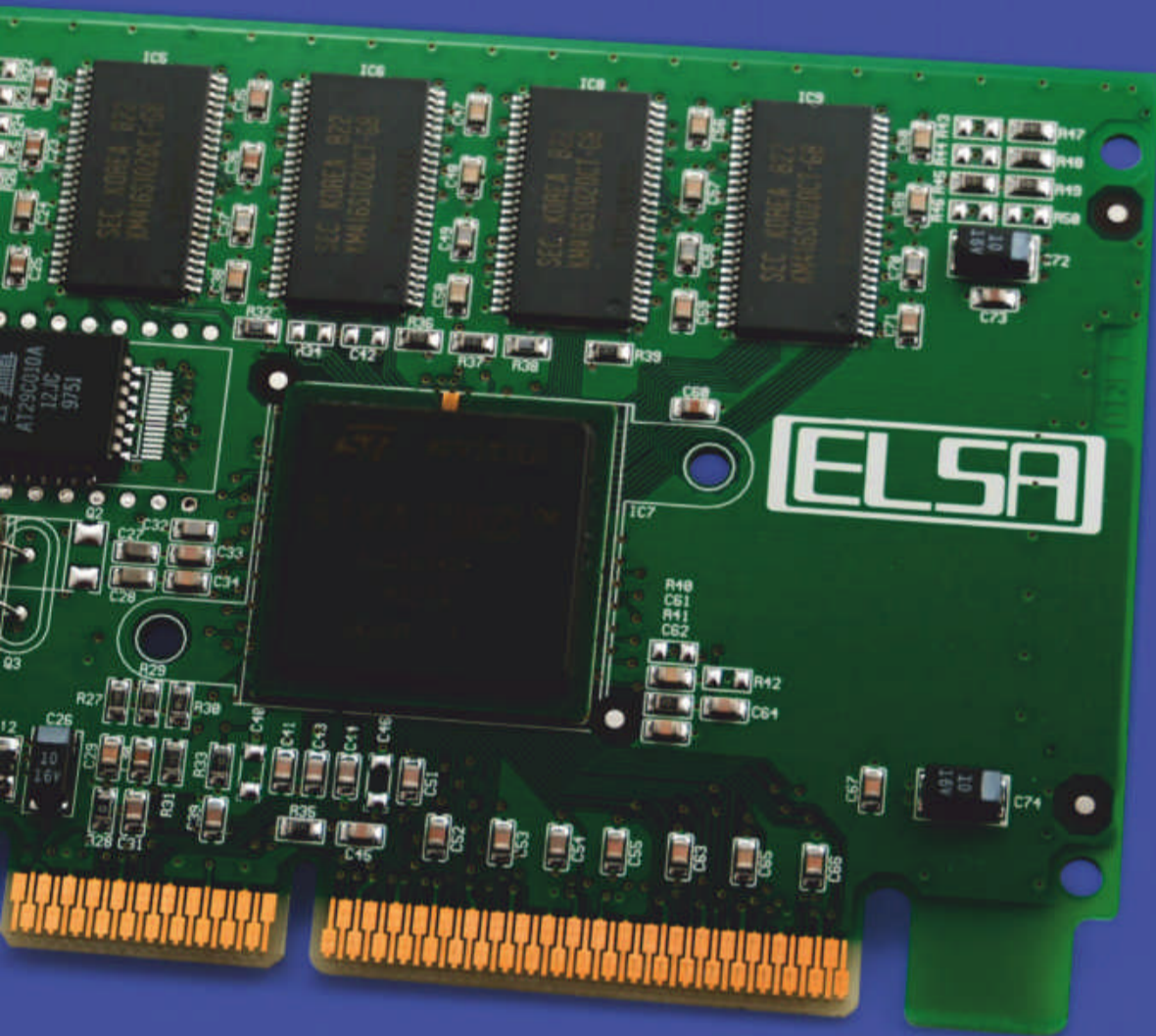
1 It's March, 1996 – England is knocked out of the Cricket World Cup by Sri Lanka, a young boy celebrates his fourth birthday (that's me), and 3dfx releases the first of what would be a couple of game-changing graphics cards: the Voodoo. It's a graphics card looked back on fondly by many in the PC Gamer office. Clocked at just 50MHz and fitted with a whopping 4/6MB of total RAM, the Voodoo was clearly the superior card for 3D acceleration at the time. The top spec could handle an 800x600 resolution, but the lower spec was capable of only 640x480. Despite its 2D limitations, it would prove a highly successful venture, and set 3dfx on a trajectory into PC gaming fame.

Note: the 3dfx Voodoo is often referred to as the Voodoo1, although that name only caught on after the release of the Voodoo2.



**A GRAPHICS CARD LOOKED BACK ON
FONDLY BY MANY IN
THE PC GAMER OFFICE**

INFO YEAR: 1996 / **CLOCK SPEED:** 50MHZ / **MEMORY:** 4/6MB / **PROCESS NODE:** 500NM



Nvidia Riva 128

2 A chipset company by the name of Nvidia would soon offer competition to the 3dfx in the form of the Nvidia Riva 128, or NV3. The name stood for 'Real-time Interactive Video and Animation', and it integrated both 2D and 3D acceleration into a single chip. It was a surprisingly decent card following the Nvidia NV1, which had tried (and failed) to introduce quadratic texture mapping.

This 3D accelerator doubled the initial spec of the Voodoo1 at 100MHz core/memory clock, and came with a half-decent 4MB SGRAM. It was the first to really gain traction in the market for Nvidia, and if you take a look at its various layouts – memory surrounding a single central chip – you can almost make out the beginnings of a long line of GeForce cards, all of which follow suit.

But while it offered competition to 3dfx's Voodoo1, and higher resolutions, it wasn't free of its own bugbears – and neither would it be alone in the market for long before a 3dfx issued a response in the Voodoo2.

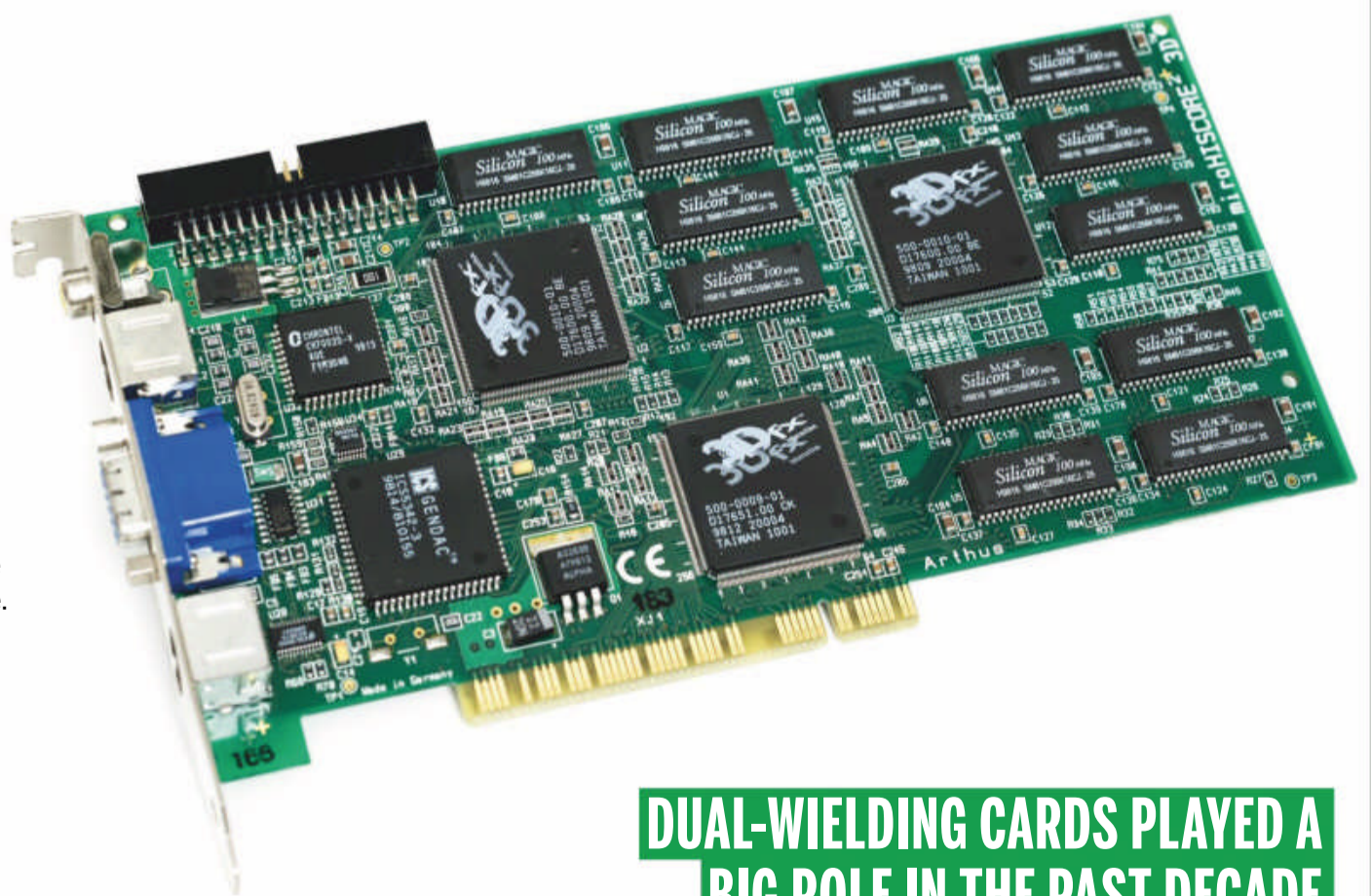
INFO YEAR: 1997 / **CLOCK SPEED:** 100MHZ / **MEMORY:** 4MB / **PROCESS NODE:** SGS 350NM

3dfx Voodoo2

3 Now this is a 3D accelerator that requires no introduction. Known far and wide for its superb performance at the time, the Voodoo2 is famed for its lasting impact on the GPU market, great frame rates, and continued use of a multi-chip design. A smorgasbord of chips, the Voodoo2 featured a 90MHz core/memory clock, 8/12MB of RAM, and – once connected via a port on twinned cards – the Voodoo2 could even support resolutions up to 1024x768.

Dual-wielding cards played a big role in the past decade of GPU performance. It was possible for a PC user to connect two cards together for better performance back in 1998 – and it was worth doing, too. 3dfx managed to stay on top with the Voodoo2 for some time, but it wasn't long until it would make a few poor decisions and be out of the graphics game entirely.

INFO YEAR: 1998 / **CORE CLOCK SPEED:** 90MHZ / **MEMORY:** 8/12MB / **PROCESS NODE:** 350NM



DUAL-WIELDING CARDS PLAYED A BIG ROLE IN THE PAST DECADE OF GPU PERFORMANCE

Image credits (1,2 & 3): Fritchens Fritz

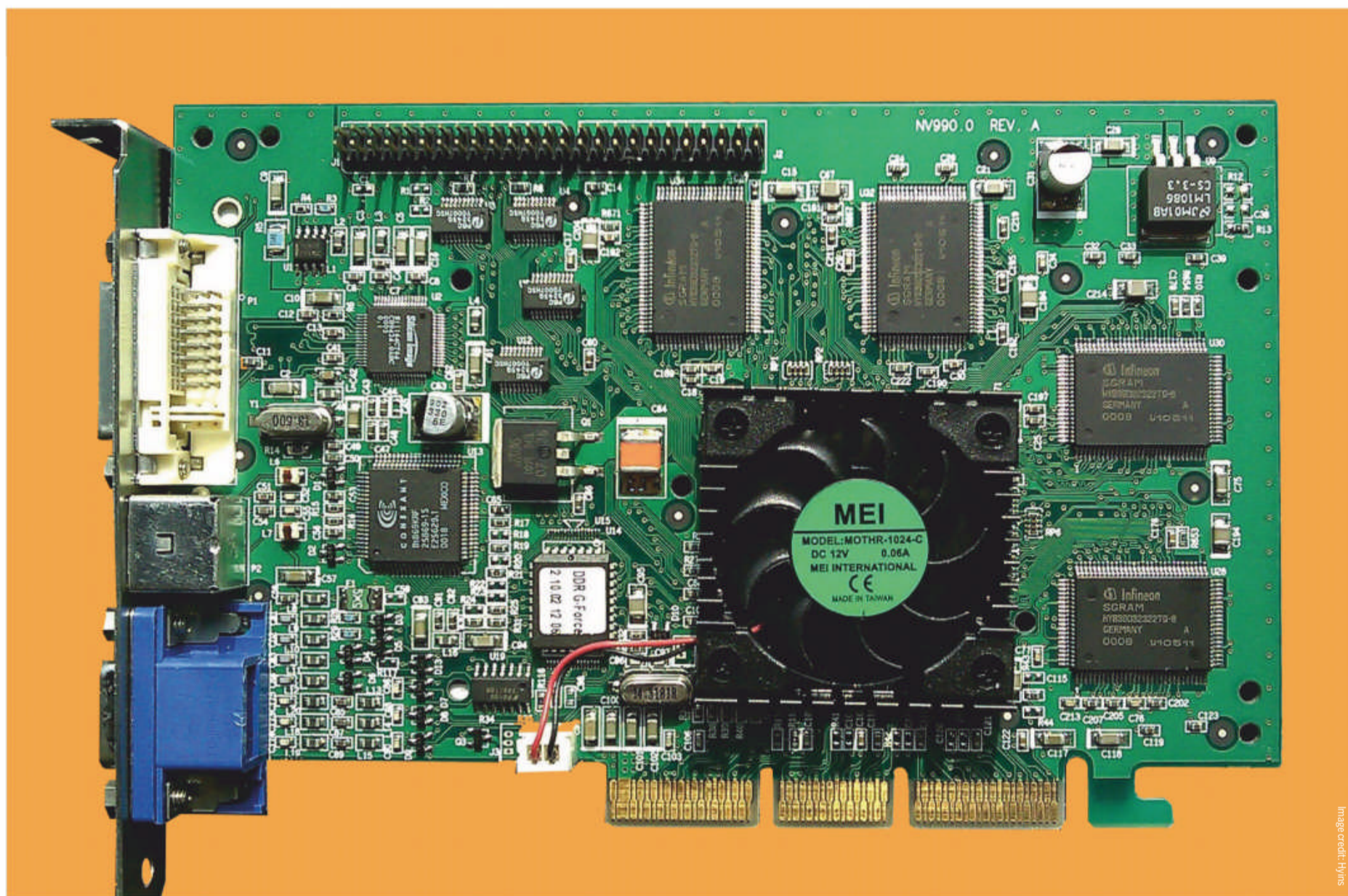


Image credit: Hyms

Nvidia GeForce 256

4 The first bearing the GeForce name still in use today, the GeForce 256 was also the 'world's first GPU'. "But what about the Voodoos and the Rivas?" I hear you ask. Clever marketing on Nvidia's part has the GeForce 256 stuck firmly in everyone's minds as the progenitor of modern graphics cards, but it was really just the name Nvidia gave its single-chip solution: a graphics processing unit, or GPU.

As you can probably tell, this sort of grandiose name, a near-parallel to the central processing unit (CPU) raking in cash since the '70s, was welcomed across the industry.

That's not to say the GeForce 256 wasn't a worthy namesake, either. Integrating acceleration for transform and lighting into the newly-minted GPU, alongside a 120MHz clock speed and 32MB of DDR memory (for the high-end variant). It also fully-supported Direct3D 7, which would allow it to enjoy a long lifetime powering some of the best classic PC games released at that time.

INFO YEAR: 1999 / **CORE CLOCK SPEED:** 120MHZ / **MEMORY:** 32MB DDR / **PROCESS NODE:** TSMC 220NM



Nvidia GeForce 8800 GTX

5 Once Nvidia rolled out the GeForce 8800 GTX, there was no looking back. Precursor to ultra-high-end, enthusiast graphics cards, such as the RTX 3090, if you want to talk about a card that really got peoples' attention it's the GeForce 8800 GTX. Launched back in 2006 to much fanfare, the 8800 GTX was the largest GPU ever built at the time. With 128 Tesla cores inside the G80 GPU, and 768MB of GDDR3 memory, the

8800 isn't an unfamiliar sight for a modern GPU shopper. It bears the marks of many a modern GPU – even if it might be a little underpowered by today's standards. Despite a pre-launch recall threatening to scupper the 8800 GTX launch plans, this graphics card ruled over the GPU market at launch and even stuck around for some time afterwards thanks to a unified shader model, which was introduced with the architecture alongside Direct3D 10.

INFO YEAR: 2006 / **CORE CLOCK SPEED:** 575MHZ / **MEMORY:** 768MB GDDR3 / **TRANSISTORS:** 681 MILLION / **PROCESS NODE:** TSMC 90NM



ATI Radeon HD 5970

6 And what's AMD been doing all this time? Semiconductor company ATI was busy building heaps of console chips right the way through the '90s and early '00s, and made some excellent GPUs in its own right, such as the X1900 XTX. It was later purchased by AMD in 2006. After the abortive HD 2000 and 3000 series, the HD 4870 and 4850 were quality cards, but the one that made the biggest splash after the move was the Radeon HD 5970. The HD 5970 was essentially a large Cypress GPU, 1,024MB pool of memory, and a sizeable 256-bit memory bus... multiplied by two.

This twin-GPU tradition continued right the way up to the AMD Radeon R9 295X2 and the Nvidia Titan Z. But once multi-GPU support started dwindling, solo cards became the predominant form factor. And with multi-GPU support in the developer's court due to the introduction of DirectX 12, they may never return.

SPECS YEAR: 2009 / **CORE CLOCK SPEED:** 725MHZ / **MEMORY:** 2,048MB GDDR5 / **TRANSISTORS:** 4,308 MILLION / **PROCESS NODE:** 40NM

THE ONE THAT MADE THE BIGGEST SPLASH AFTER THE MOVE WAS THE RADEON HD 5970

Dave's fave from the grave

NVIDIA 8800 GT

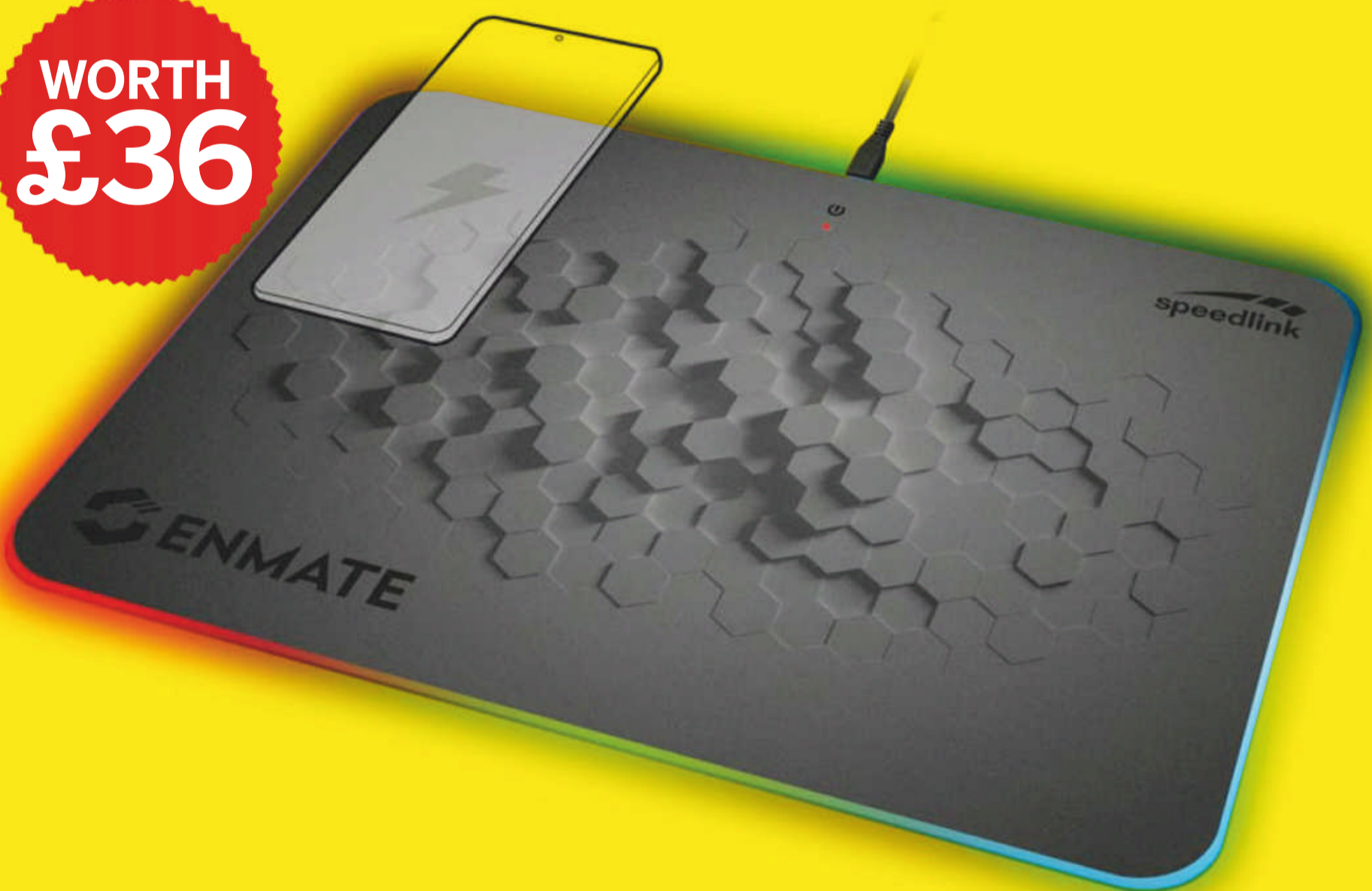
Dave James: I've gamed on more graphics cards than I can remember. My first Voodoo2 was transformative, the Riva TNT was ace, and I've since had twin Titans and dual-GPU Radeon cards in my home rigs, but none hold so dear a place in my heart as the 8800 GT. Forget the 8800 GTX, the GT combined stellar performance, great looks, and incredible value. I've still got my single-slot, jet-black reference card – the very same one photographed here and originally for PC Format issue 217 – and will never part with it.



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Unreal World

Two years on, **EPIC GAMES STORE** is still a golden ticket for developers and irresistible bait for gamers. *By Rob Zak*

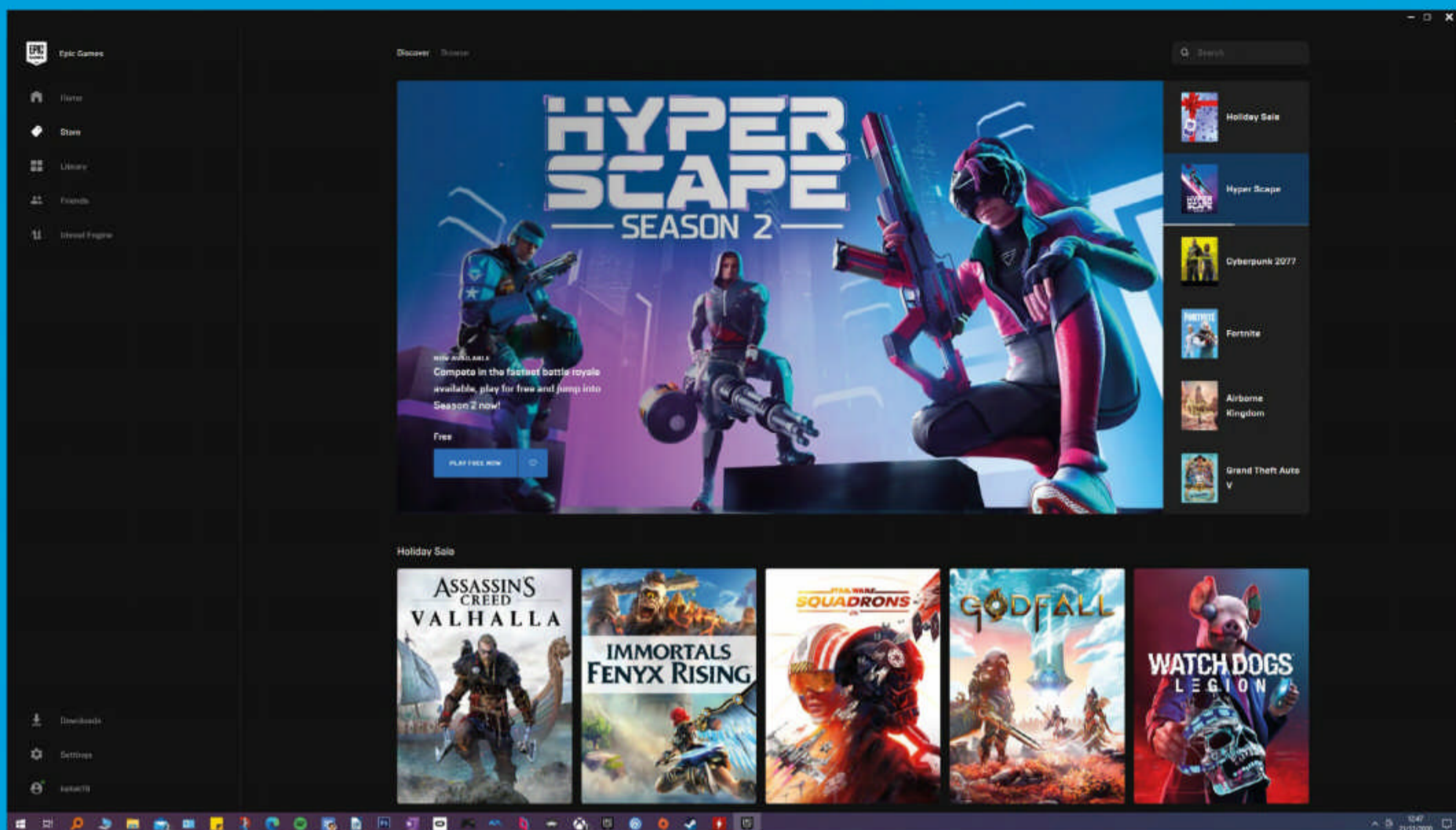


he Epic Games Store celebrated its second anniversary recently. You can be forgiven for not setting a calendar reminder. The store's impact on the PC gaming landscape has been fascinating, but controversial – a suspiciously philanthropic entity that's provided gamers

with dozens of wonderful freebies, fledgling developers with financial security and a foot-up in a tough industry, and Steam with some proper competition.

It's also pissed a lot of people off. From fairly trifling complaints about having to use a separate launcher other than the de facto PC darling Steam, to the slightly less trifling issues around aggressive platform exclusivity and its poor infrastructure when compared to Steam.

All of this can make for a confused tangle of feelings about the Epic Games Store, and even two years on the merest mention of it seems to instantly inspire discussion and, more often than not, arguments. So as a sort-of birthday celebration (albeit one where I whisper all the recipient's character flaws into their ear while giving them a hug) I've decided to see how far it's come since its inception, and chat with the developers of games that have launched on both Epic and Steam to get an idea of how the creators themselves feel about the two platforms. >



» WINDOW SHOPPING

Clicking around the Epic Game Store's slick, flat pages today, the most striking problem is that it's largely as threadbare as it was two years ago. Its user interface and frontend features just don't feel worthy of a platform that continues to snap up swathes of big IPs and indie games alike in exclusivity deals. And there are no community features – no hubs filled with silly memes and in-jokes, no place to chat with strangers (or with particularly gregarious developers), no workshops where players' passion for a game feeds back into it through mods.

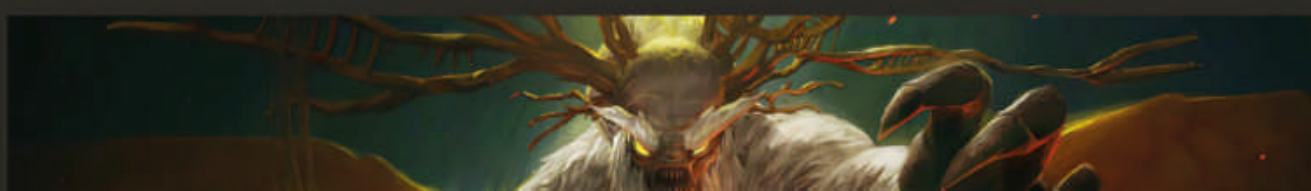
On that last point, the Epic Games Store introduced mod support for its first game, *MechWarrior 5*, back in July. It's a start, but the lack of comments or forums strips away the sense of community that's so endemic to modding. It's like comparing Bethesda's controlled,

sterile mod pages to the beautiful mess of Nexus Mods – I'll take the noise and the squalor and the occasional NSFW content over a controlled clean grid of thumbnail images any day. Modding is *meant* to be a bit messy.

The lack of these little rabbit warrens leads to a lack of discovery. When looking for new and unknown games to play on Steam, the trailers and screenshots only pull me in so far – it's more often the weird player stories, streams, and community creativity that really show me what a game is about. There's now a 'Discover' tab that serves as the store's front page, ostensibly to "help users find new interesting games", but the games it coughs up aren't exactly ones that anyone needs help discovering.

At the time of writing, five of the games on the first page of 'Discover' are big Ubisoft titles, sandwiched between *Fortnite*, *Cyberpunk 2077*, *Star Wars: Squadrons*, and *GTA V*. Only one of the ten games on display is an indie. The next thing you'll see when you scroll down is a selection of service games with holiday events – most of them already well known and popular – then you have the daily Christmas freebies. Only after that do the indies

The games it coughs up aren't exactly ones that anyone needs help discovering



really start filtering through, appearing in the 'New Releases' section a few scrolls down.

STEADY STEAM

In contrast, Steam greets me with no less than eight indie titles from the off, using my personal tastes to find games on sale I might be interested in. A little bit further down, I get a list of indies enjoyed by 'players like me' and daily community recommendations, which again highlights lesser-known games. Sure, the algorithms are inevitably imperfect, but they're at least getting my eyes on a wider selection of indie games, while on Epic the main way to get foregrounded as an indie is via the golden ticket of exclusivity or being the free game of the week.

Epic should be lauded for creating a publicly visible roadmap for the store, but it also highlights the company's priorities. Recently added checkouts, currency localisation, wishlists, and growing currency support are useful, but very much storefront-oriented. Achievements, enabled in July, are being added slowly, while a vaguely worded "social overhaul" and user reviews (that will be opt-in for developers) are still a way off. There's no mention of remote play, streaming, or family sharing – the kind of features that separate a storefront designed to sell games from a fleshed out platform designed to make gaming convenient and accessible.

Of course, frustrations with the frontend need to be weighed against how developers feel about the platform, and for the most part it seems that those who have worked with both Epic and Steam are very happy with what's on offer.

DEV-ULGENCE

Close to the Sun is an atmospheric indie game (think *Bioshock* without

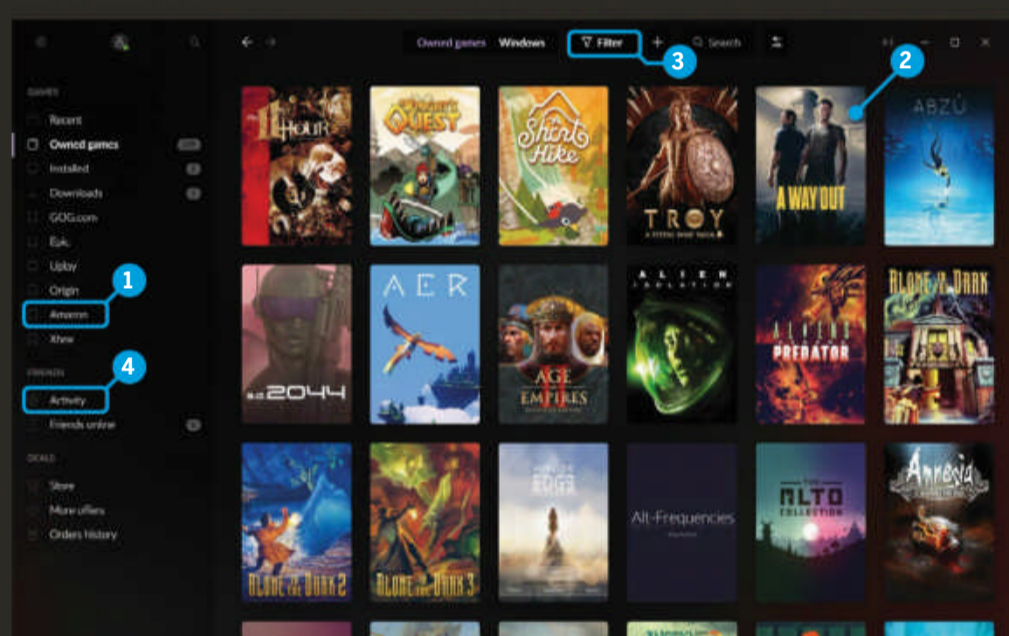
the combat) released in May 2019 as an Epic Store exclusive, before coming to Steam a year later. The game's developer, Roberto Semprebene, says that while sales likely weren't as high as they would have been with a Steam launch, the benefits of exclusivity far outweighed those lost prospective sales.

Beyond Epic's covering of development and other projected costs, *Close to the Sun's* stint on the store as a free game of the week gave it an incredible boost, according to Semprebene. Suddenly, nearly a year after its initial release, dozens of media outlets, subreddits and deal sites were talking again about *Close to the Sun*, simply because it was the latest headliner on Epic's famous free games carousel.

FAR LEFT: Epic Games Store's 'Discover' page leans towards big-budget games that hardly need more publicity.

A GALAXY NOT SO FAR AWAY *Gather your launchers*

If the fragmentation of your PC games libraries makes your gamer sensibilities short-circuit, then GOG Galaxy's launcher could be the answer. The DRM-free store's gaming platform can be used as a pretty frontend for gathering your Steam, Epic, Origin, Uplay and even PlayStation and Xbox games into one easily navigated library.



- 1** Some games libraries aren't supported by GOG Galaxy, but you can get open-source plugins to integrate those too.
- 2** Once you've connected your account, GOG Galaxy quickly scans your library and adds all the appropriate box art.
- 3** You can filter your games from across all your libraries by genre, platform, and any custom tags you've added. It helps you find stuff later.
- 4** This area shows activity among your friends across all your linked platforms, including time played and unlocked achievements.





» “Would we have reached such an audience, being a small and independent studio, even if supported by the great guys of [publisher] Wired Productions?” asks Semprebene. “As a small company that wants to survive and grow, the Epic exclusive deal guaranteed that we would recover costs and continue developing. It also helped us to make our brand known to many gamers who probably did not know us.”

Semprebene didn't want to share exact figures on purchases versus free downloads, but admitted that the free week played a big part in the game reaching around four million downloads in total. That's a lot of people owning a game that on Steam has only garnered 211 reviews.

In 2019, the developer of *DARQ* was approached about making it an Epic exclusive, and was told that exclusivity was the only way it would appear on the store. This doesn't seem to be a consistent rule, however, or Epic's eased up on it. All the developers I spoke to whose games

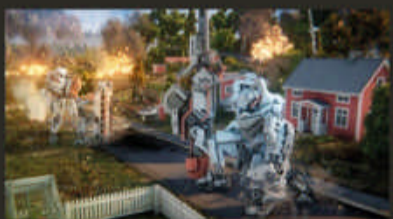
simultaneously shipped on both stores said that Epic didn't express any reservations about it. One of these games is *Calico*, an irresistibly cute game about managing a cat cafe. The game's publisher Whitethorn Digital, a specialist in cute, small-budget indie games, compared the process of launching on Epic favourably to Steam.

“Great support, direct contact with a human being, simple staging, great backend tools, one-on-one support”, says Whitethorn CEO Matthew White. “But on Steam, every time we launch a game, we spend five-six hours trying to get streaming to the page working, updating the store is a nightmare, build uploading has to be done by a member of our engineering team, and it's nearly impossible to get support to respond to your requests. Luckily, after four years in business and through the introduction of a mutual friend, we now have a reliable Valve contact, though this process was extremely difficult.”

Gavin Price, studio director behind Playtonic's *Yooka-Laylee and the Impossible Lair*, was similarly pleased with his studio's dealings with Epic. “We've had no issues creating Epic builds and the store has offered great opportunities for our game to reach a very large audience – we launched as part of 12 games of Christmas [in 2019].”

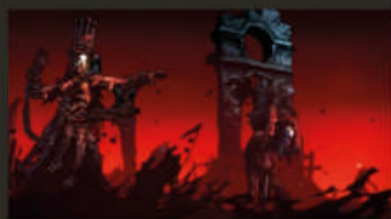
“Great support, direct contact with a human being, simple staging, great backend tools”

UPCOMING HITS *Epic's pursuit of exclusives seems to be slowing down in 2021, but there are some standout games that you won't find anywhere else*



PHANTOM BRIGADE

Already playable in Early Access, this turn-based strategy game pits towering mechs against each in crunching battles across adorable little forest towns. The twist is that you can see four seconds into the future, allowing you to outmaneuver your enemies.



DARKEST DUNGEON II

The relentlessly difficult but sadistically rewarding roguelike returns as an Epic exclusive some time in 2021. The biggest news we know so far is that it will be 3D, while retaining the original's brutal turn-based combat and hellish gothic world.



CHIVALRY 2

With *Mordhau* and *Mount & Blade II*, there are a lot of very good ways to dally in medieval combat on PC. *Chivalry* is one of the classics though, and the sequel looks pleasingly brutal as you kick, dismember and slash your way across online battlefields.

COLD STORE-AGE

When I asked whether these studios would consider Epic exclusivity for future games, their response was a unanimous ‘yes’. Price put it best, “Each game is its own bespoke puzzle in bringing to market in the best way possible, and in this day and age discoverability is always going to be a huge problem, so I think an exclusivity deal regardless of the platform can have huge benefits. We'd be very open-minded about such offers ourselves and can certainly empathise with developers who see this as the right thing to do by their game – that ultimately they could be relying on to make a living or springboard for future success.”



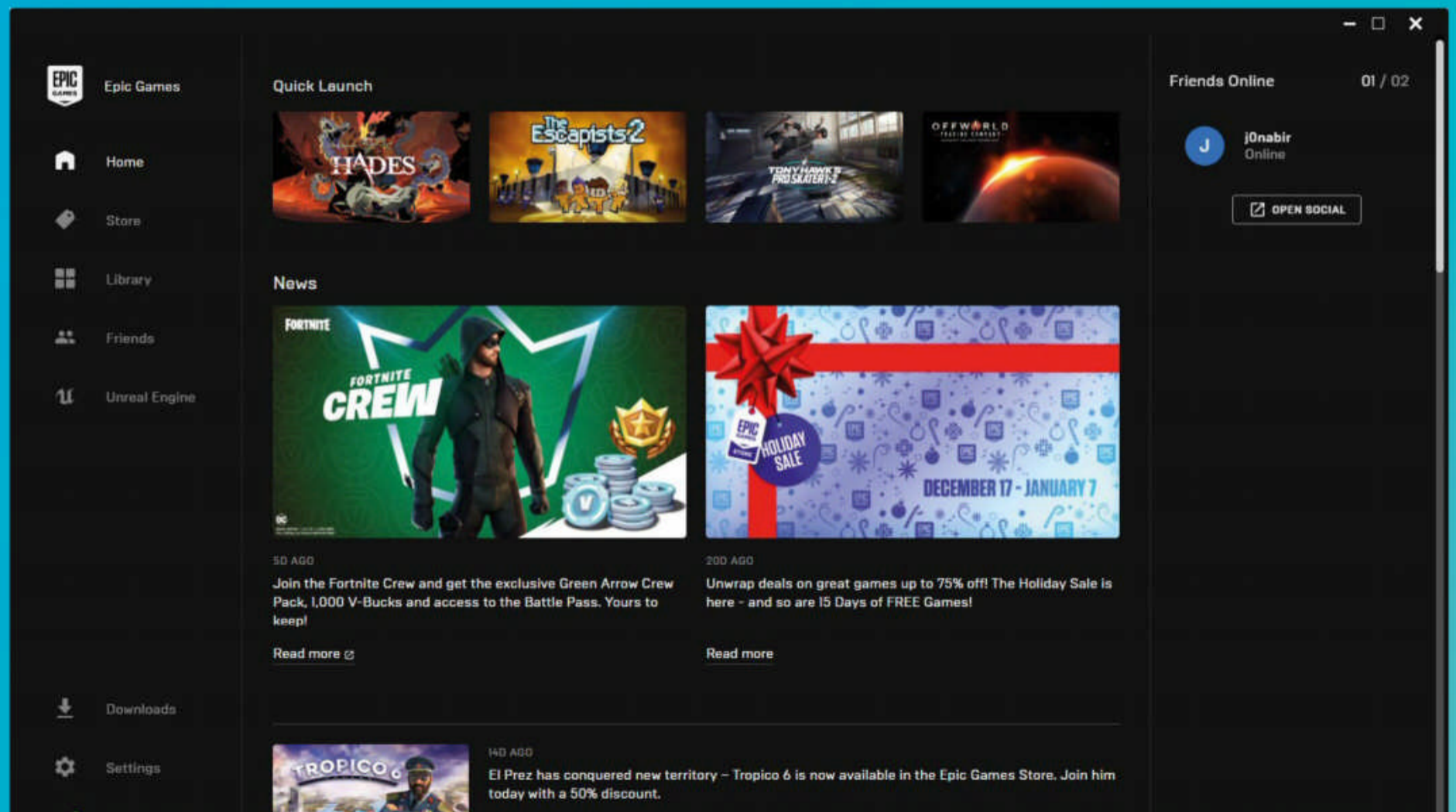
So after two years, the Epic Games Store remains strangely similar to how it started in both design and principle – a virtual golden ticket for developers and an awkward but alluring platform for gamers, dazzling us with its gleaming hoard of free videogame riches. Its lack of community and discovery features are easy to ignore when Epic is keeping both sides of the equation satiated with its seismic show of monetary magnanimity.

But will that same goodwill carry over into genuine consumer loyalty when Epic's free game sideshow eventually comes to an end? Will indie games get the opportunities and exposure they need on the Epic Games Store without the publicity of exclusivity or being podiomed as the free game of the week?

Based on my own experience as a ritualistic beneficiary of Epic's giveaways and £10 game coupons, I feel that loyalty towards the Epic Games Store is as shallow as the pages of the store itself. It's not a convenient place to look for interesting new indie titles or arrange gaming get-togethers with friends; it's a storefront with some eye-catching titles and claims to being a Steam competitor, but step inside and it's an eerily hollow place. And that is making me question the sincerity of the impressive window display as I inch back towards the exit and go and find something on Steam instead.

There is definitely a lot of work to do here if Epic wants to hold my attention beyond this extended, expensive honeymoon period. ■

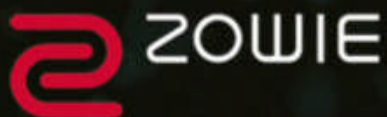
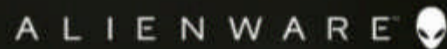
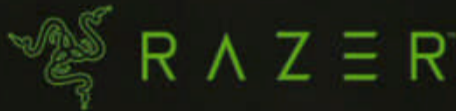
BELOW: My Epic Games Store library has around 130 games so far. Now to actually play them...



GAMING DEALS

START THE NEW YEAR OFF WITH OUR DEALS

SEE IT.
BUY IT.
BOX IT.



FROM THE ONLINE TECHNOLOGY STORE



BOX



VISIT [BOX.CO.UK/GAMING](https://www.box.co.uk/gaming) >>>>

REVIEW

HOW WE REVIEW

We review each game on its own merits, and try to match it to a reviewer who's a passionate expert in the field. The main aim of reviews is to help you make buying decisions. To this end, we're selective about what we review, and try to focus on the notable, interesting, exciting or surprising.

DOWNLOADABLE CONTENT

DLC might be new missions for a game, or it might be a single new item. If we think you want to know about it, we'll review it.

EARLY ACCESS

Any released alpha, beta, or otherwise unfinished game that you can currently pay for. For these games, we won't assign a score, but we will tell you whether they're worth your time.

THEY'RE BACK

Whenever there's a bargain or re-release of a significant game, our expert will revisit it and tell you whether it holds up today. With jokes.

OUR SCORING SYSTEM EXPLAINED

00%-09% Broken or offensively bad; absolutely no value.

Example *Leisure Suit Larry: Magna Cum Laude*

10%-19% We might be able to find one nice thing to say about it, but still not worth anyone's time or money.

Example *Gettysburg: Armored Warfare*

20%-29% Completely falls short of its goals. Very few redeeming qualities.

Examples *Family Guy: Back to the Multiverse*

30%-39% An entirely clumsy or derivative effort. There's little reason to play this game over a similar, better one.

Examples *Trials of the Blood Dragon*

40%-49% Flawed and disappointing.

Examples *Aliens: Colonial Marines*

50%-59% Mediocre. Other games probably do it better, or its unique qualities aren't executed well.

Examples *Primordia, Homefront: The Revolution*

60%-69% There's something to like here, but it can only be recommended with major caveats.

Examples *No Man's Sky, Ghost Recon: Wildlands*

70%-79% A good game that's worth playing. We like it.

Examples *Prey, NieR: Automata*

80%-89% A great game with exceptional moments or features, and touches of brilliance. We love it.

Examples *Overwatch, Night in the Woods*

90%-94% A compelling recommendation for most PC gamers. Important to PC gaming, and likely ahead of its time.

Examples *Bayonetta, Dishonored 2*

95%-96% Far and away one of the best games we've ever played. We recommend it to the entire world.

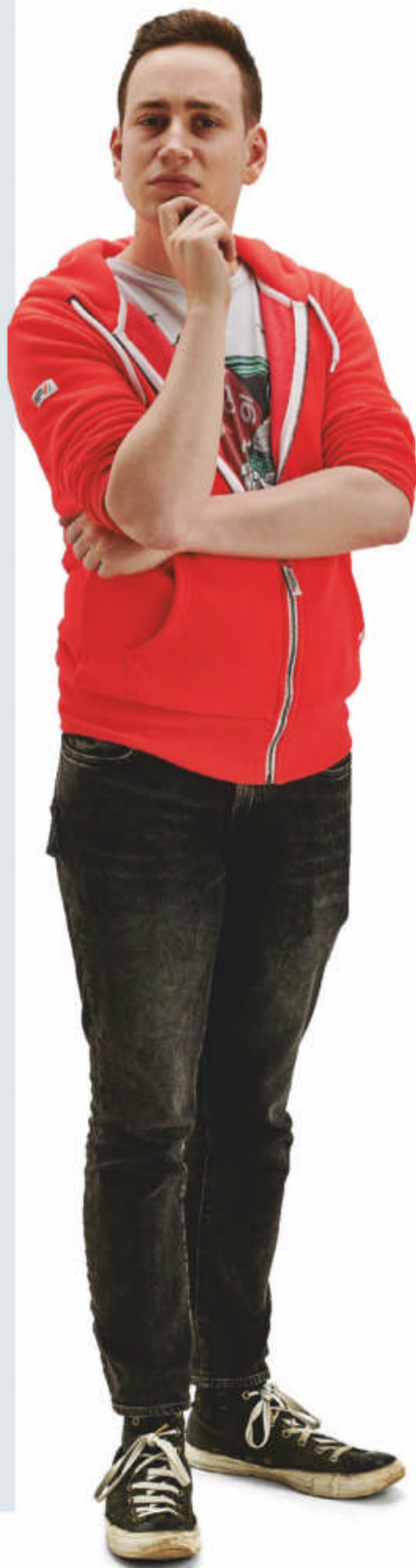
Examples *Half-Life 2, Kerbal Space Program*

97%-100% Advances the human species. Boosts the immune systems of nearby children and small animals.



The Editor's Choice award is granted in addition to the score, at the discretion of the PC Gamer staff. It represents exceptional quality or innovation.

Find out more
www.bit.ly/pcgreviews



Score!

How seriously should we take review scores? Here at PC Gamer we try to be as rigorous about them as possible, with our percentage-based system forcing at least a mildly scientific approach. But sometimes I wonder if we're a bit old-fashioned in some ways – many other magazines and sites have moved to less granular scoring systems, or done away with the numbers entirely, hoping to better convey the undeniable truth that every review is just, like, someone's opinion, man. Can a reviewer's personal thoughts and perspective actually be boiled down so precisely as to assign a percentage score? How much meaning is there really in saying a game is a mere one or two percentage points better or worse than another? These questions keep me up at night. And for that reason I think I'm only going to give them 54%.

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**LET US KNOW
 WHAT YOU THINK**
 Email us via letters@pcgamer.com with your reactions, or simply tweet us your thoughts @PCGamer



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This month's elusive but deadly reviewers...



ANDY KELLY
Specialist in
 Hiding in plain sight
Currently playing
Hitman 3
This month
 Discarded that silly journalist disguise to reveal he's been an assassin all along.



FRASER BROWN
Specialist in
 Balancing the books
Currently playing
Airborne Kingdom
This month
 Discovered how difficult it is to get planning permission at 10,000 feet.



RACHEL WATTS
Specialist in
 The intersection of cute and creepy
Currently playing
Omori
This month
 Reviewed a game that, frankly, sounds haunted.



LUKE KEMP
Specialist in
 Meching do
Currently playing
Override 2: Super Mech League
This month
 Spent too much time thinking about a giant robot's nipples.



MORGAN PARK
Specialist in
 Taking point
Currently playing
Call of Duty: Black Ops – Cold War
This month
 Reviewed the second best *Call of Duty* released in 2020.



TOM SYKES
Specialist in
 Solving mysteries to a deadline
Currently playing
Loco Motive
This month
 Discovered exactly how light-hearted a homicide can be.



MATT ELLIOTT
Specialist in
 Going nowhere
Currently playing
80 Days
This month
 Travelled the world from his bedroom. He probably didn't need all those jabs.

RAVE ON

IO Interactive gets experimental with **HITMAN 3**, its most creative and surprising assassination simulator yet. *By Andy Kelly*

And so, here we are, we've finally come to the end of IO Interactive's so-called *World of Assassination* trilogy, which began with the Danish developer's first *Hitman* reboot back in 2016. These are some of the best systems-driven stealth games on PC, and *Hitman 3* tops the series off with a superb collection of levels – some of which are among the best in the entire series. This is a spiritual and mechanical continuation of the previous two games, but IO still has a few surprises up its sleeve. And one level in particular might just be the studio's masterpiece.

I'm in an abandoned warehouse on the outskirts of Berlin. Spindly lasers and strobing spotlights sweep across a shadowy dancefloor, revealing a sea of bobbing heads hypnotised by throbbing techno music. The music is so loud, and the bass so deep, it makes my headphones vibrate. But I'm not here because Agent 47 has given up contract killing and joined the German rave scene. Nope, I'm here to murder a team of deadly assassins who are also trying to murder *me*.

Ten agents from the ICA – the organisation Agent 47 was once an employee of himself – are patrolling the warehouse and a scrubby industrial wasteland surrounding it. And here's the kicker: they know what I look like, even if I'm wearing a disguise. I can still change clothes to stroll past the lowly security guards, but these trained killers aren't so easily fooled. If they catch sight of me they'll open fire, which means I have to rely on those swarms of pill-popping ravers – and the maze-like architecture of the building – to conceal myself from them.

Most *Hitman* targets are cowards hidden away in a fortress behind a wall of armed guards, which makes these guys so thrilling to go up against. It's a totally different dynamic, and one of the most challenging missions in the trilogy as a result. There aren't even any Mission Stories in this level, the in-game hint system that usually suggests entertaining ways to kill

your targets. This encourages you to experiment with the sandbox and dream up your own methods of dispatching the agents.

The beauty of *Hitman* is studying these big, intricate levels

DEADLIEST GAME

To complicate matters, the assassins are also disguised. To identify them I have to steal an earpiece and listen in on their conversations. When I catch one talking to their handler

in instinct mode – which highlights targets, points of interest, weapons and so on – their cover is blown and they're marked permanently on the map. Now all I have to do is figure out how to kill them without anyone noticing, in front of thousands of witnesses, in the middle of a rave. I could just shoot them and run away, of course, but that's not the correct way to play *Hitman*.

NEED TO KNOW

WHAT IS IT?
A globe-trotting assassination simulator

EXPECT TO PAY
£50

DEVELOPER
IO Interactive

PUBLISHER
In-house

REVIEWED ON
RTX 2080 Super, Intel i7-9700K, 16GB RAM

MULTIPLAYER
No

LINK
hitman.com

It seems impossible at first. Some of the targets follow routines where they're constantly surrounded by people. One of them, the leader, even has a bodyguard who never leaves his side. But the beauty of *Hitman* is carefully studying these big, intricate levels, making a mental map, and finding holes in the security to exploit. When you do finally manage to kill five of these assassins – enough to send the others fleeing and finish the level – it feels incredible.

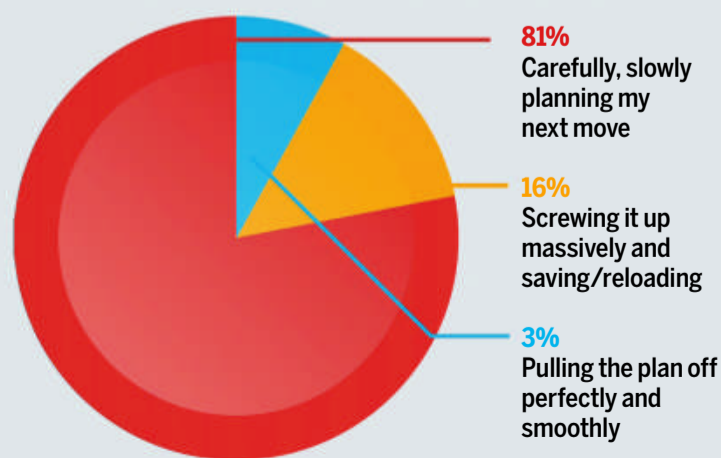
Although *Hitman 3* builds on the foundations laid by the first two parts of the trilogy, sharing the same AI, stealth systems, and user interface, IO has also taken this opportunity to experiment with its tried and tested formula. The complex, open-ended Berlin level is the most the studio has ever trusted a *Hitman* player to take the lead and figure things out for themselves. And in the other levels there are, surprisingly, only three Mission Stories per map, compared to an average of about ten in the previous two games' levels.

The opportunities are still there: elaborate traps to set up, people to pose as, shortcuts to take, keys to swipe. They just aren't as clearly signposted this time around, forcing you to engage more with the environment around you. At its core this is still very much a classic *Hitman* game, but in many ways a more playful, experimental one. One level set in a dusty old mansion in Dartmoor, England sees Agent 47 posing as a private detective and solving a murder mystery straight out of an Agatha Christie novel. It's a gimmick, but a fun, unique spin on what is otherwise a fairly typical assassination mission.

The mansion itself is brilliantly constructed. Long, dark corridors lined with oil paintings open up into bright, lavishly decorated drawing rooms. And behind the walls there's a labyrinth of secret passages to discover – complete with peepholes for spying on people. There's also a wonderful feeling of isolation, with

PLAN OF ATTACK

How I spend my time in Hitman 3





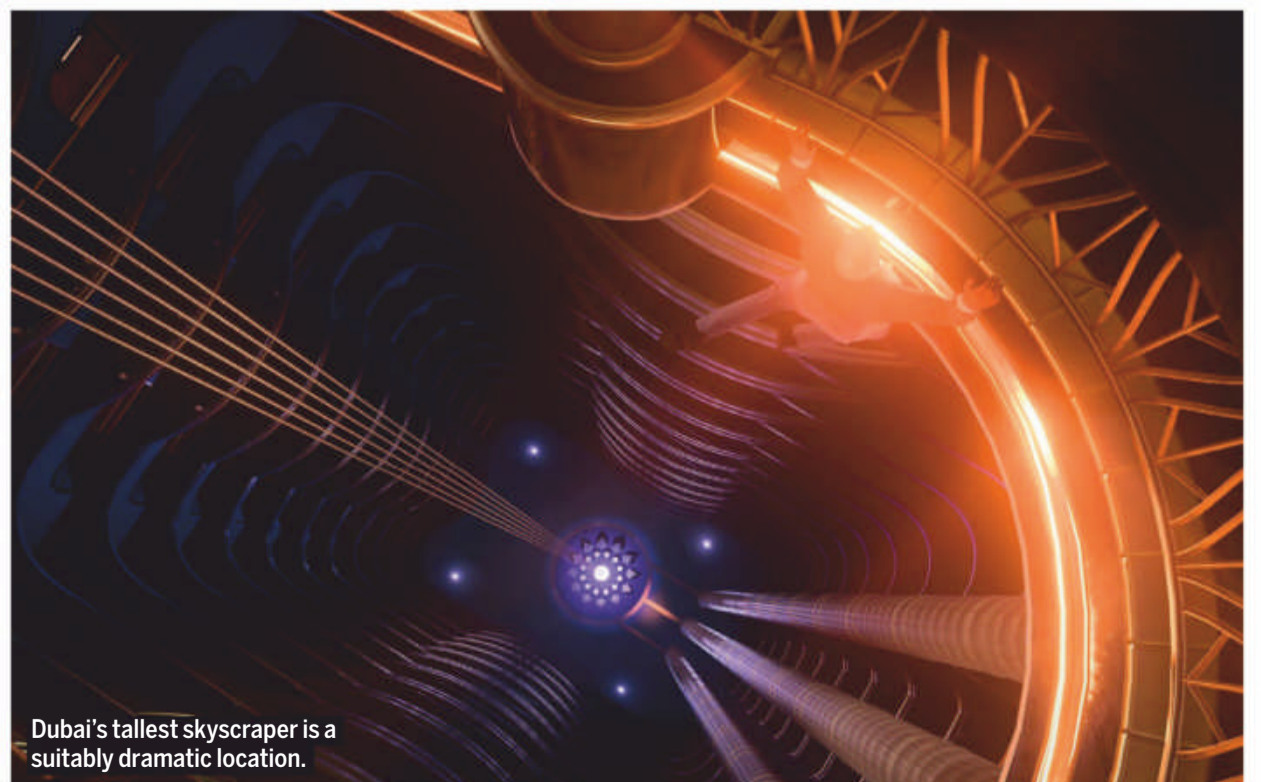
The rainy, neon-lit Chongqing level is a real visual showcase.



Stopping at an Argentinian winery to spill some claret.



Thornbridge Manor has echoes of a Poirot novel.



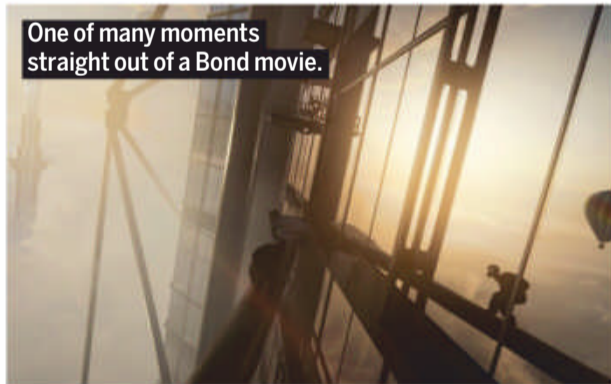
Dubai's tallest skyscraper is a suitably dramatic location.



Drink in that moody neo-noir vibe.



He's never looked more convincingly steely-eyed.

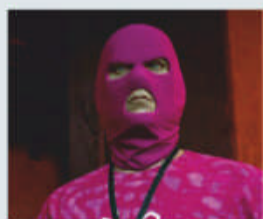


One of many moments straight out of a Bond movie.



They'll never know I was here.

DRESSED TO KILL *Some of Agent 47's strongest looks*



BARTENDER

All the bar staff at the rave in Berlin wear this fetching combo of a pink balaclava and an oversized tie-dye t-shirt.



GAUCHO

A South American cowboy. They guard the winery in the Mendoza level, and sport snazzy neckerchiefs.



DJ

If you want to take over the decks at the rave, you'll need to somehow get hold of this, uh, interesting DJ get-up.



TUXEDO

For a man with no emotions, 47 sure loves dressing up. This crisp white luxury tux is right out of James Bond.



TWEED

When 47 visits the English countryside, he blends in with the locals by covering himself in some nice tweed.



CLOWN

This is a powerful look that says "Yeah, I love killing people, but I love a joke too." No one ever suspects the weirdo.

» the house standing alone in an expanse of barren, overcast moorland that stretches infinitely into the distance. No one makes *places* quite like IO Interactive, and in *Hitman 3* you'll find some of the developer's finest creations to date.

Chongqing is another standout. It's a pretty straightforward mission compared to Berlin and Dartmoor, but an incredible piece of level design. Above, rain-soaked streets buzzing with fluorescent neon signs, noodle bars, apartment blocks, and winding, trash-stuffed alleyways. Below, a gleaming futuristic facility run by the ICA, with multiple layers of security, heavily armed guards, and vent systems to slip through. This impossibly intricate double-stacked level is one of the most impressive things IO has ever created; both in terms of atmosphere and aesthetic, and in how many interesting ways there are to navigate it.

DARK TOURISM

As for the other levels, *Hitman 3* opens with Agent 47 taking a trip to Dubai and infiltrating a glamorous soiree at the top of its tallest building. He enters the level by parachute, crawls through a window, slips into a tuxedo, and blends into the crowd, as if we needed any more proof that IO loves James Bond. It's a real visual treat too, with immense gilded palm trees, reflecting pools, and dramatic views over the cloud-covered city. But for all its glamour it's a rather simple, reserved level, feeling more like a tutorial to ease new or lapsed players into the game.

Dubai introduces the digital camera, a largely forgettable new

gadget that 47 always has in his inventory, regardless of what you selected at the mission planning phase. With it you can scan things for extra intel or hack electronic panels to trigger certain things – for instance, activating a futuristic window's frosted glass to cover you, or remotely opening a vent cover. It's a frivolous addition, really, and feels slightly out of place in a *Hitman* game. But the levels are almost never designed around it, so thankfully it's not too intrusive. And in its favour, I do like how you can use the zoom function to scout ahead.

Later, 47 travels to Mendoza, Argentina, and sneaks into yet another high-class party: this time at a winery. With golden early evening sunlight falling over the vineyards, it's gorgeous to look at, and a Mission Story involving a sniper is especially devilish. The level is

split between the winery, where the party is being held, a scattering of rocky foothills patrolled by gaucho guards, and a colonial villa where one of your targets lives. It's another level that plays things relatively safe, but it's much more detailed and involved than the Dubai level.

ONE LAST JOB

The sixth and final map, set among Romania's rugged Carpathian Mountains, isn't a typical *Hitman* level at all. It's more like an action set-piece, designed to finish Agent 47's story in spectacular fashion. It's a tightly choreographed, visually impressive finale, but it is, essentially, scripted. Without spoiling anything, the nature of the level means there's no room for exploration. You do get a

few opportunities to flex your creativity, but mostly you're just doing what you're told. This makes it the weakest by default, even though it's crafted with the same level of polish that defines all of IO's levels.

Over the years, IO has gotten really good at designing the many small stealth challenges that litter its levels. The placement of guards, improvised weapons, blind corners, security cameras, and places to hide bodies is often pitch perfect. There are countless tiny, satisfying moments in these levels where you're given *just* enough to cleverly outfox the AI and use the environment to your advantage. You rarely feel backed into a corner, or in a situation you can't find a way out of, which speaks to the quality of the game's design. And as you unlock additional tools and gadgets, the sandbox only gets deeper and more varied.

Despite a couple of weaker levels, *Hitman 3* is a sensational stealth game. Berlin, Chongqing, and Dartmoor represent the series at its best, which is a fine way to end the trilogy. And if you own the first two games you can access all of those levels here, with improved visuals and the ability to use the new game's gadgets and weapons in them. Do that, and this is easily one of the very best games you can play on PC today. If this was a review of the trilogy as a whole, I'd stick a couple more points on the review score. But even on its own, *Hitman 3* is a magnificent videogame and a perfect swansong for this incarnation of Agent 47. ■

PC GAMER VERDICT

A beautiful, deep, and endlessly replayable murder sandbox, featuring some of the best levels in the series.

90



LOST BOYS

EL HIJO is a charming stealth game that can't quite scratch out its own niche. *By Luke Winkie*

In *El Hijo*, the collectibles are orphaned children. The protagonist, a six-year-old unnamed boy, walks up to them and expands their world a little bit; maybe he teaches them to juggle, or how to fold a paper aeroplane. Those formerly despondent kids sparkle with joy, as a pop-up box informs the player that, thus far, they've 'inspired' one out of the four children in the level.

Honig Studios emphasises so many of those charming moments in its sepia-toned Wild West. The boy hangs off the bottom of a cow to pass through a corral undetected; he jumps in a minecart for a brief dose of *Donkey Kong*-style rail racing; he hides underneath a sombrero to protect himself from a sheriff. The game has heart, is what I'm saying.

Broadly speaking, *El Hijo* is a stealth game. The boy explores 29 levels following a simple, wordless

narrative about reconnecting with his mother after the family farm is razed by bandits. That journey will take you through stately monasteries, arid desert wastelands, and saloon shootouts. There is danger around every corner, and calamity can only be avoided by not being seen. And so, the boy is offered the standard Sam Fisher palette of abilities. He is nearly invisible in the shadows, and he can slink along the crates, boulders, and foliage with his head down to remain hidden. You will quickly acquire a slingshot, which can be used to cause distractions that will clear out guards from their pesky patrol routes. Later, the boy has access to smokebombs, wind-up toys, and fireworks to further his diversion abilities.

El Hijo is a series of puzzles, rather than the anything-goes dynamism and improvisation that define most other modern stealth games. There is a clear and singular solution to evade many of the enemies in your path. A guard dog sits squarely in the exit. The only way to get him off his spot is to strike a scarecrow with a slingshot pellet, sending a flock of crows in his

direction. He chases them off, and opens a brief window to paydirt.

The puzzles are generally smart and constructed with care, but there were times that I wished that *El Hijo* felt more alive. Everything about its stealth is deeply mechanical. There is

a function that allows you to see the precise sightlines of your enemies, which removes some of the anxious guesswork from the proceedings. As long as you're in the shade, the boy can stand literally inches in

front of his adversaries without getting busted – and I think that saps away some of the spirit of the genre. At the same time, I found some of the

There were times that I wished that *El Hijo* felt more alive

NEED TO KNOW

WHAT IS IT?
A stealth game set in the Wild West

EXPECT TO PAY
£18

DEVELOPER
Honig Studios

PUBLISHER
THQ Nordic

REVIEWED ON
Windows 10, Intel Core i7-9700 CPU @ 3.00GHz
16.0 GB RAM

MULTIPLAYER
No

LINK
elhijogame.com

game's rigidity frustratingly inconsistent. In particular, I was never given a good idea of what was in range, or out of range, of my slingshot, or if my slingshot was going to distract an enemy at all. Part of that, I think, is a symptom of *El Hijo*'s desire to funnel its players towards their solutions, but it's off-putting when stuff doesn't work.

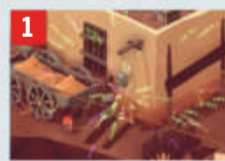
TUNNEL VISION

El Hijo makes up for some of those shortcomings with its beauty. Honig Studios has done a great job creating a pristine, Remington Old West – one that looks like a kid's collection of plastic cowboys strewn across a sandbox. Whether you're in the bowels of a church's crypt or navigating a rugged cliffside, the game pops off the screen. The story, as I said earlier, is primarily presented through the environment, and honestly I couldn't glean much out of the major plot points. What I will say is that there is some surprisingly grim imagery in the back half that took me aback. I'm not saying Honig was operating distastefully, but that content did seem out of place given the relative buoyancy of the setting.

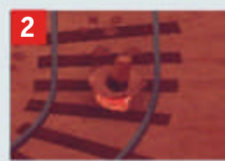
In general, I wish *El Hijo* were a tad bit snappier. During my time with it, I kept thinking about *Hitman Go*. That game pursued a similar hybrid of regimented, low-variance stealth and smart puzzle solving, but it also moved at a quicksilver pace, and was burdened with fewer ambiguities. That is the element *El Hijo* is missing: the decisiveness of action that makes you truly feel as if you've outsmarted the AI. It's a sensation I always get from my international assassin or my superspy, and I wish I got more of it from my six-year-old boy. ■

HELPING HANDS

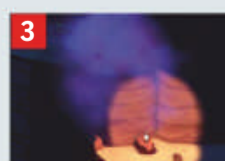
El Hijo's tools, ranked



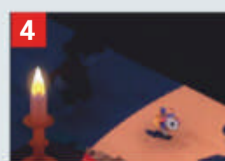
1 FIREWORKS
Nothing feels better than destroying bandits' eardrums with a bottle rocket.



2 SOMBRERO
Tidy, utilitarian, and appropriately spaghetti-western. Classic for a reason.



3 SMOKEBOMBS
The most Solid Snake of the bunch. Let's you hide in plain sight.



4 WIND-UP TOYS
Seriously what guard is going to be distracted by a wind-up toy?

PC GAMER VERDICT

It's really quite difficult to play Honig Studios' *El Hijo* without wishing for a little more flair in its stealth system.

63

Take aim.



Those dogs are meaner than they look.

There's a lot of contextual hiding spots around the world.



Deep in the earth.



What a rager.

CLOUD CITY

AIRBORNE KINGDOM is a city builder where your only enemy is gravity. *By Fraser Brown*

I have built a lot of cities in games over the years, and I've given my citizens plenty of reasons to flee them. In *Cities: Skylines*, I flooded their homes in liquid poo. In *Surviving Mars*, I left them to suffocate. In *Anno 1800* – and this is the one that's actually left me most ashamed – I failed to provide them with enough sausages. *Airborne Kingdom*, however, is the first city builder where I've lost people because the city was leaning too much.

Before this became a review, my plan was to play an hour of *Airborne Kingdom* to get some gifs, but instead it ended up stealing most of a day, with me finally leaving my floating metropolis at around midnight (maybe a bit after). And then I kept coming back for more. I'm an easy mark for a city builder and rarely manage to escape their grasp quickly, but *Airborne Kingdom* still manages to lodge itself in its own niche thanks to some unusual experiments and its own spectacular style.

The basics are familiar and conventional: you build simple production chains and infrastructure to fulfil the needs of the city and its denizens, with the demands of both getting more complicated as you expand. Power, food, factories, morale-boosting diversions – there's loads to build, but you'll recognise all the categories. All this is happening in the sky, though, and that's a pretty substantial wrinkle.

Airborne Kingdom doesn't feature any combat or even a whiff of conflict, at least not with other people. The war against gravity, though, never ends. Physics is a constant obstacle, and more than

Physics ends up being an excellent replacement for terrain

anything else it's that force of nature that determines your city's layout. You start out with just a little town centre, gently bobbing away in the sky, perfectly balanced. But once you start placing houses, hangars for

your aeroplanes and towering minarets, it's going to start quickly sinking, so you'll need to generate more lift. And you're going to need to make sure it's all even.

LOOKING UP

Too much tilt and your citizens will peace out. And who can blame them? Nobody wants to live in a place where they have to nail down their furniture, or where they're greeted by a view of the ground, miles below them, every time they look out the

NEED TO KNOW

WHAT IS IT?
A city builder in the clouds

EXPECT TO PAY
£20

DEVELOPER
The Wandering Band

PUBLISHER
In-house

REVIEWED ON
GTX 1080 Ti, Intel i7-8086K, 16GB RAM

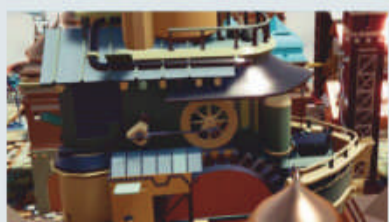
MULTIPLAYER
No
LINK
airbornekingdom.com

window. They can stomach a little bit of tilt, but I can't. It just looks like a disaster waiting to happen. And it only takes one little building to push it over the edge.

Since you have to find and directly recruit your citizens, their loss can sting, and you might end up left with too few people to work or explore, necessitating some unwelcome downsizing as you destroy buildings and try to plan your comeback. The citizens are a precious resource certainly, but it's coal that keeps your city aloft. All your most important components burn through the stuff, and unlike other resources it can only be stored in one location, limiting how much you can stockpile. Without that resource, the city's done for – sadly it's a bit too heavy to gently float to the ground.

Physics ends up being an excellent replacement for terrain. Geography is a defining feature of a city, and thus city builders, but it loses its impact when you can soar above it all. You've got infinite space, but thanks to physics you can just keep expanding in whatever direction you want. You have to build methodically, and then make lots of little adjustments. If the city is lying a bit low, maybe chuck in a new fan or some wings. If all the new buildings are creating too much drag, some more propellers could give you a bit more propulsion. All of these things require resources, workers, and space, of course, which might inspire yet more adjustments.

THE MAGIC OF FLIGHT *How to keep your city aloft*



COAL

Sorry, you can't be entirely green in *Airborne Kingdom*. You need to keep burning coal to stay in the sky, but limited storage space means you'll always be looking for deposits.



LIFT

Massive wings, fans, and balloons will keep you soaring, but as your city gets heavier you'll need to keep adding more, which means burning through more workers and coal.



PROPULSION

Propellers, tails and other devices will help you keep up the speed and hopefully stop you from being stranded without resources, but you'll need to keep an eye on drag.

LEANING TOWERS

These limitations have forced me to spend a lot more time considering how my city should grow, and it means no section is ever really complete – I'm always redesigning them. The result is something dynamic and organic, constantly shifting to meet new needs. I had a plan for how I wanted my city to look, and it now looks nothing like my vision. Instead it's something built out of my reactions to imminent disasters, my experiments, my

The world below is almost as striking as the city itself.



Trade can be pretty handy if you're seconds away from starvation.

★ Allied ★
Kingdom of Rutula

We seek to barter our resources. No merchants offer a fair price, but if we're desperate, we can trade at a loss.

Rutula merchants scavenge from the underground ruins at great cost to their own morality. This was reflected in the prices they offered.
 - From *Journals of Our Travels* by Malak the Journal Chronicler

- We seek to trade for coal [BUY]
- We seek to trade for water [BUY]
- We seek to trade for food [BUY]
- We seek to trade for clay [BUY]
- We seek to trade for quartz [BUY]
- We seek to trade for wood [BUY]
- We turned to other matters...

Kingdom of Rutula

I will never tire of gazing at my messy clockwork city.



Flying cities contribute to 90% of deforestation. It's tragic.



Every ground-based city has a brief quest for you before they'll join your gang.



All your citizens are little, faceless homunculi. Just a *bit* creepy.



Even the little buoys that mark your destination are cute.



Pilots can be sent to gather all the resources you need from the ground.

Eventually farms and other buildings will help you become self-sustaining.



I've spent an unhealthy amount of time just painting buildings.



➤ experiments to fix the problems created by my previous experiments, and a few cosmetic flourishes. It's a bit of a mess, but I love it.

The world below still plays an important role. It's where all your resources are found. Absolutely everything you need to build with, continue flying, and keep your people alive is found on the ground, and you can explore the entirety of the map at your leisure. To keep your city fuelled and fed, you'll have to constantly stay on the move, sending down workers in planes to gather up what you need. While *Airborne Kingdom* doesn't lean into its survival elements as much as, say, *Surviving Mars*, the relationship between the world and the survival mechanics is as strong as it is with a pure survival game.

SKY HIGH

Instead of giving you more places to build, the world is something to be explored. There are small settlements and cities waiting to be discovered and traded with, plenty of hidden bounties, and a few secrets that can be used to unlock wonders that will make your already very impressive city even more enviable. The map is presented as a literal map, with little embellishments like curling, torn edges, and provides just as much eye candy as the city.

Despite dabbling in survival management, *Airborne Kingdom* maintains a relaxing pace. There are complications, crises, and plenty of ways to cock everything up, but the first biome has all

the resources you need in abundance, letting you build up a nice stockpile, and while scarcity can become an issue, you can return to a less challenging area pretty quickly and recuperate. For the most part, it's light and breezy. Those aren't typically adjectives I seek out in management games, but it's really kept me too busy with surviving and working on my own projects to notice that the challenges are infrequent and the tension rare.

Importantly, this pleasant pace gives you plenty of room to flex your creative muscles. You're not just building a city – you're creating a weird architectural marvel. While there are plenty of concerns that will shape your city, you're also free to follow your aesthetic tastes. This goes

LOOK OUT BELOW *Get to know Airborne Kingdom's biomes*



DESERT

It might look like an arid wasteland at first glance, but the desert is actually the most generous of all the biomes, with abundant resources all grouped together. You'll start here, and you should stick around.



HIGHLANDS

The misty, craggy north will see you travelling further to find resources, and you'll always be struggling for food. Make sure to pack a picnic – and maybe build some farms – before you head up there.



SHALLOWS

You'll not need to worry about water in the shallows. Sure, most of it's full of salt, but there are loads of freshwater pools waiting to be drained. Unfortunately, there's hardly any coal, which is a problem.

beyond building placement, too, since you'll uncover lots of paint schemes that you can apply to buildings individually, by type, or all at once.

Much like Oskar Stålberg's enchanting *Townscaper*, you can approach city design as an artist as well as a planner.

Sometimes I like to just slow things down to a crawl and stare at my magnificent creation. It's constantly buzzing with life, from the narrow streets, to the skies around the city. Even the buildings can't sit still, and they have a tendency to flap and spin and generally make the city look like a madcap contraption built

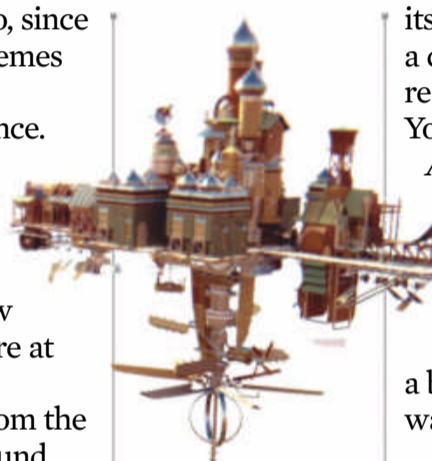
by an out of control toymaker. It's hypnotic, though I suspect actually living there would be a lot like living in a carnival that never ends, perpetually surrounded by weird noises and arcane machines, which

sounds quite stressful.

The only place the breeziness becomes a problem is when you try to become a diplomat. See, your ultimate goal is to create your airborne kingdom by forging alliances with all the cities on the ground, unifying the world. It seems ambitious, when in fact it's a doddle. You fly up to a city, find out what it needs, get directed to the exact spot you'll find that thing, and then – after depositing some resources – you're best buds. The process never changes or spurts out any surprises. Every quest feels like an afterthought.

FRIEND SHIP

Nobody seems to have any concerns about this flying city appearing out of nowhere and making everyone join



its empire, either. Once you've added a city to your list of allies, you never really need to think about it again. Your allies are always content.

Airborne Kingdom never really explores its premise or lets you question your objectives. You don't need to make hard calls or worry about becoming a tyrant, because you're always presented as a benevolent force that everyone wants to be mates with.

I can understand, however, why The Wandering Band might have been hesitant to bog the game down with more complications. It's already got countless buildings, resources, an elaborate tech tree, and plenty of novelties demanding your attention, and all of that has impressively been squeezed inside a game that you can wrap up in ten hours. Surprisingly little has been sacrificed to make it something you can devour over a weekend. And you can spend a lot longer with it if you fancy.

Before I made my final ally, I spent ages just repainting my city. I kept changing my mind. Sometimes I wanted uniformity, but then I'd get the notion to just throw random colours out there to see how it looked. There was a lot of clashing. A pink roof, red walls and green floors? Fine by me. I guess I'm a bad king, but in very mundane ways that don't lead to an execution – especially since there isn't room up here for a guillotine. I made every building blue once, but I've never let my people starve. Well, not for long. ■

PC GAMER VERDICT

Airborne Kingdom is a smart, thoughtful, and hypnotic city builder that won't leave you tearing out your hair.

80

SLICE OF LIFE

OMORI's cutsey adventure is RPGmaker's latest cult horror hit. *By Rachel Watts*

There's a weird reputation to games made in RPGmaker. The game engine's is known for spawning basic clunky demakes of classic RPGs, but also cult horror hits like *Yume Nikki* and *Lisa*. The RPGmaker scene has dwindled over the years, making *Omori* feel like the ghost of a bygone era. But even though seeing the game's blocky visuals is like a blast from the past, this psychological RPG has all the makings of being a modern cult classic.

Omori follows the childhood antics of a group of kids during the summer break. The game is split into two realms: the dream world, where the group is searching for their missing friend, and the real world, where their regular lives play out. Led by a stone-faced boy called Omori, the group has light-hearted adventures, but there's an undercurrent of childhood trauma yet to be confronted.

When these horror elements reveal their distorted heads it's pretty scary stuff, but *Omori* balances it out with a dreamy fantastical world full of jokes, puns, and kooky characters. There's Pluto, the buff planet who loves to flex and teaches you moves for battle. Life Jam Guy, a riff on the Kool-Aid mascot whose enthusiasm for health items knows no bounds. Even the boss characters are funny, like Sweetheart, an obnoxious pop star who has a giant heart-shaped mace and cackles like an anime villain.

Talking to every character in each area is worth every quip they share with you, although, due to RPGmaker's visuals, characters can easily get overlooked. *Omori* is full of little rewards and secrets for

Full of rewards and secrets for exploring every part of its world

exploring every part of its world, but chatty characters, objects to smash, and readable notes often get lost in visual translation, looking like background decoration instead of things you can interact with. I

almost missed one of my favourite lines from the game – a ghost in the corner of a library who wonders out loud, "Is a ghost a gas?"

It's almost funny that out of this colourful cast of characters you get to play as the titular Omori, a quiet kid who lacks even a hint of a smile. It's understandable, I suppose – if I was plagued by ghosts and monsters I wouldn't have anything to smile about either. But it's a little eerier than that. While *Omori's* rag-tag

NEED TO KNOW

WHAT IS IT?
A turn-based RPG that combines a cute adventure with a creepy uneasiness.

EXPECT TO PAY
£15

DEVELOPER
Omocat

PUBLISHER
In-house

REVIEWED ON
AMD Ryzen 5 3600,
AMD RX 5700 XT, 16GB
RAM

MULTIPLAYER
No

LINK
omori-game.com

group uses the likes of dodgeballs and spatulas in battle, *Omori's* chosen weapon is simply a sharp knife which he cuts and stabs enemies with.

PLAYING WITH EMOTIONS

Children wielding deadly weapons aside, battles play out similarly to other turn-based RPGs – but *Omori* has a twist. It uses an emotional system where a character's feelings influence how they fight. Happy, sad, and angry work similarly to rock, paper, scissors, and each one enhances the characters in different ways. A character can buff the party's defences by reading them poetry to make them sad, or bother them to make them angry so their attacks get a boost. This emotion system makes *Omori's* group feel like a cohesive unit, the characters always buffing each other in interesting ways. Also, when a hero dies their avatar turns into a piece of toast, for some reason.

It's also in battles when you get to see an enemy or character up close. Up until that point they've just been a handful of pixels, but in battle, you get to see them in all their glory with full character art. This reveal really packs a punch, whether it's seeing a character in detail for the first time or a horrible monster up-close.

As much as I liked the encounters with *Omori's* various monsters, the horror elements do wade into the dark waters of mental health and the story gets a little grim towards the end of the game, a decision that I think undermines some of the game's main story beats. Coupled with this, it nearly slips into the trope of everything being solved with 'the power of friendship', though thankfully, its heartfelt moments are backed up with strong storytelling and characters you really feel for. ■

CURIOUS CREATURES

Some of the terrifying enemies you'll be brawling with



FOREST BUNNY
Don't be fooled by its cuteness – this vicious beast will kill you if it gets the chance.



YE OLD SPROUT
The grandpappy of all the mole sprouts in the forest, and a tough old prune.



REVERSE MERMAID
These abominations drop fish tacos after you defeat them. Weird.



DOROTHY
A creepy plasticine deer that chases you through a train carriage. Pretty rude if you ask me.

PC GAMER VERDICT

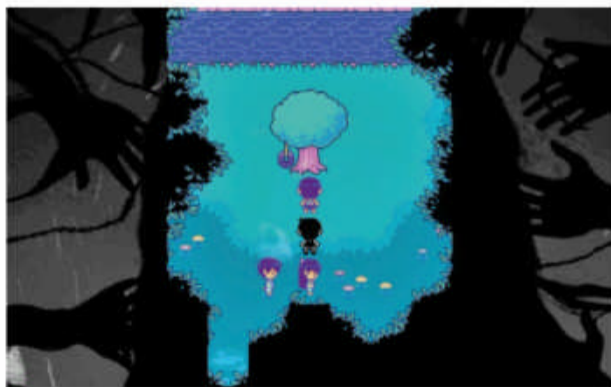
Omori's ending is certainly brutal, but its characters and humour put some heart behind the horror.

80

I feel like someone is watching us.



One word to describe this mole sprout: angry.



HEAVY METAL

OVERRIDE 2: SUPER MECH LEAGUE
has a few screws loose. *By Luke Kemp*

Giant robots. Stick those two words together, in that exact order, and something deep in the human brain lights up and makes swooshing noises. Make them fight one another (what else are they good for, after all?), and you might even get an involuntary squeak of delight. This game is about nothing but enormous mechs punching, kicking, and shooting one another; but something's not quite right. And I'm not talking about the wrestler fish with nipples the size of transit vans.

To understand what *Override 2* is, you first need to understand what it isn't. It's a beat-'em-up and, sure, that immediately tells you a lot about the experience. Given the clear influence certain Japanese movies and TV shows have had (this sequel wears its heart on its massive metal sleeve with Ultraman DLC), you'd be forgiven for expecting something that is akin to an anime or manga beat-'em-up. The speed is a far cry from the lightning pace of such games, however, and while having 20 mechs to choose from is a decent selection, it's not a patch on the encyclopaedic cast of, say, a *Naruto* title.

It's no *Street Fighter*, either. Generally speaking, each mech is limited to four to six special moves and an ultimate, no one of which can be chained smoothly into another. Some basic punch and kick combos are possible, but nothing particularly lengthy or flashy. With each arm and leg assigned to a separate button, it's closer to *Tekken* than anything else,

although the system here lacks the depth and flexibility of Bandai Namco's legendary series.

The game you'd expect *Override 2* to resemble most closely is, well...

Override 1. Which it does. Sort of. The first title didn't exactly set the gaming world alight, but it was full of great ideas ripe for further development. A story mode about repelling kaiju, balancing quick but

weak strikes with charged, more powerful blows, a co-op mode where up to four people controlled the same mech, a heat meter that prevents constant button bashing... none of which is present here.

Each mech is limited to four to six special moves and an ultimate

BOTS AND PIECES

Override 2 moves along on the unpredictable trolley wheels of bizarre design decisions, the most noticeable of which for existing fans is the one to drop almost everything that made the first game interesting and/or unique. With a little tweaking, the combination of giant monsters

NEED TO KNOW

WHAT IS IT?

A disappointing way to have giant mechs fight one another

EXPECT TO PAY

£25

DEVELOPER

Modus Studios Brazil

PUBLISHER

Modus Games

REVIEWED ON

GeForce GTX 1650, AMD Ryzen 5 3550H, 8 GB RAM

MULTIPLAYER

2-4 (local and online)

LINK

bit.ly/38hPkHr

and co-op mech piloting could have given us the quality Pacific Rim tribute that the first game had in its sights. Sadly, that was not to be.

Instead of having a traditional story mode, there is Leagues, an awkward and underwhelming hybrid of online and offline gameplay. There's chatter from your 'agent' between matches – the idea is that the mechs are fighting in a kind of future sport – but it's thoroughly uninteresting, and fails to tell any kind of coherent story. That wouldn't necessarily be a problem if Leagues was... you know.... *better*.

Each game mode is presented as its own league. The idea, basically, is that you repeatedly play matches in each to work your way up from F to S. You also earn in-game cash as you go, with bonuses won for meeting optional objectives such as blocking a set number of hits. This currency is used for unlocking more mechs for use in Leagues, as well as customisation bits and bobs. I never feel the need to do much customising, though. I'm simply not invested enough to care what picture is used for my avatar, and the majority of mech decoration is limited to different coloured arms, legs, torsos and so on.

After each match, a random selection of game modes are made available to play, rather than all of them. Why? I have no idea. It's yet another inexplicable decision. It certainly doesn't help in the game's greatest challenge: finding somebody to play against. Each time you trigger a match in Leagues, the game tries to find online opponents for you, with the option to skip the search and battle bots instead. Despite playing across several different days, I only once found a human opponent.

CIRCUIT BREAKER

The painfully small number of people playing at any one time (according to SteamDB, this never hit double figures while I played) really isn't the fault of the developers. The

MECH MY DAY

Some of the weapons you'll find teleporting into *Override 2* maps



FRYING PAN

Pretend you're a housewife from a 1950s sitcom with this!



HAMMER

Very slow, but very bashy. Just mind your thumbs when you bring it down,



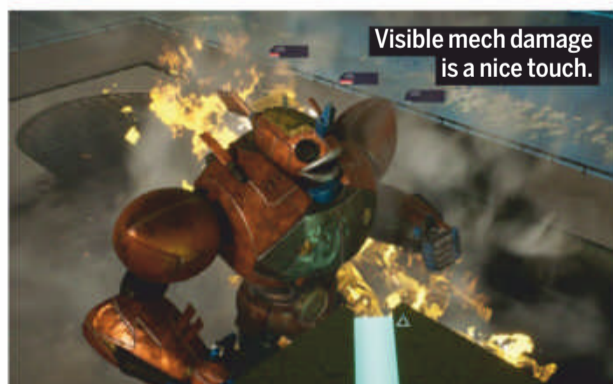
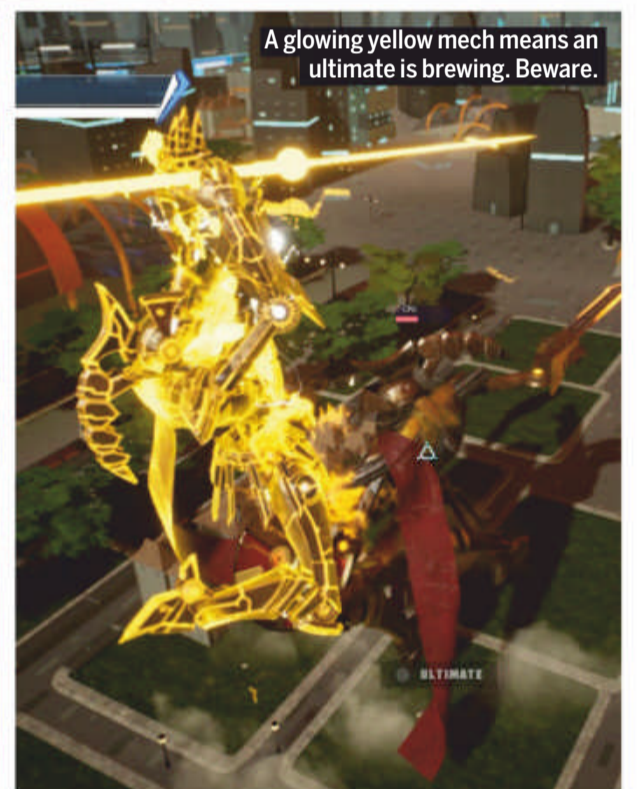
SHOTGUN

Range is frustrating/brilliant depending on who's holding it.



SPEAR

Stab for long range, or charge for very, very long range.





Walk into the light (to charge your ultimate).



Motion blur makes it difficult to capture, but this is a pretty game.



Hate it when the program freezes.



When you get hit by this, you know it.



Metageckon's lunch repeating on him.



➤ fragmentation and distribution of modes, however, is. There's a Quick Play option at the main menu to jump into any available game, but I'm not sure if this includes Leagues matches. Either way, it didn't help.

The struggles are a shame because, once you dig past the baffling design decisions and inexplicable omissions from the first game, there's a solid fighter in there. The mechs (most of which return from the first game, largely unchanged) are all pleasingly unique. Visually, they're all very well designed, and they all play very differently. You wouldn't expect a robot with a huge CRT monitor for a head to fight in the same way as a metal Roman centurion, after all. Well I wouldn't, anyway.

Override 2 is a faster-paced fighter than the first game, and as a result, loses much of the sense of enormous, weighty mechs clashing. Initially, it feels a bit like a mindless button-basher. Combine the extremely limited combo opportunities with special moves activated by simply hitting two buttons at once, and there doesn't seem to be much room for skill. Stick with it, and you'll realise that's not quite true.

There's a split-second delay before the activation of each special move. As the attacker, you need to make sure that you don't leave yourself vulnerable. As the defender, you can use that briefest of pauses to block or, better yet, reposition yourself to counterattack. Even the basic element of throwing your opponent can work to your advantage in ways you won't find in other beat-'em-ups. Arenas contain environmental hazards and, in modes with more than two players, fallen mechs explode after a short time. You can time a thrown metallic corpse correctly for a satisfying advantage.

My favourite map is Cakeland. Wonderfully silly name? Check. Strawberries big enough to crush a large family to death? Check. Sections of the ground that move up and down? Also check. Moving platforms such as this add another layer of strategy, and it's a shame that they're not used in more of the game. They limit when and where certain moves can be used effectively.

NEEDS RUST

One thing that's survived from the first game is the scattering of limited-use weapons across the maps.

BRASS KNUCKLES

Meet a few of the mechs kicking the oil out of one another



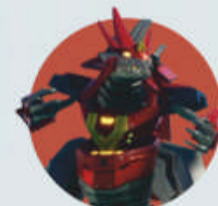
PESCADO

The perennially surprised, disturbingly benighted wrestler of robots, with a fish for a head.



SHIFU

You can tell he's a wise master by the long metal beard, metal moustache, and metal eyebrows.



METAGECKON

The beautiful metallic monster. If he hadn't made it into the sequel, there would have been justified riots.



VIDAR

With lovely long legs and a bow and arrow, she decimates her opponents before ambling away.

This doesn't add as much as you might hope, and in fact, the game is at its best when you ignore them. Guns feel unfair thanks to generous auto-targeting (though some will doubtless love this), and melee weapons tend to be too slow, or afford you an unfairly long reach.

Returning to Leagues, most of the modes can be classified as simple 1v1, 2v2, or 1v1v1v1 fights. The two most interesting deviations are Control – a mode for four players, where the mech which stays inside a shrinking, moving circle for the longest wins (so long as they survive) – and Xenoswarm. The latter is the most challenging mode as the game currently stands. With multiple alien mechs after you (none of which, sadly, are playable), it's a fight for survival that asks more of you than usual.

In fact, Xenoswarm's challenge serves to highlight the damage that a lack of players is doing to this game. This mode's difficulty comes solely from the fact that there are more opponents than usual to defeat before the match ends. In any other mode, it's painfully clear that the AI isn't quite up to scratch. Whack it up to maximum, and opponents are more aggressive – and pay more attention to the randomly placed glowing circle that slowly charges ultimate meters – but still doesn't require mastery of the systems to overcome. There is a good fighter in there somewhere, but it's difficult to see when you're stuck with bots that are only putting in a half-hearted effort.

It really is a shame, because I have a genuine fondness for many of the

mechs. One of my favourites is the returning Metageckon, who is basically Mechagodzilla but red. I mean, come on. A robot dinosaur? If you don't think that's cool, you're dead to me.

PANEL BEATING

Other mechs include a giant robot unicorn (that stands on two legs), a breakdancing frog, a mech that could have fallen straight out of Power Rangers, and that wrestling fish with star-shaped metal nipples that I *really* can't get over. It may fall short in several other areas, but *Override 2*

gives its mechs character in spades.

There's a solid fighting foundation here and, sometimes, you can see it in moments of victory (or even rare instances of defeat) when you find a perfect counter to an

attack, or fail due to sloppiness. In fact, this would be good for bouts of family fun; and that's no snide, backhanded compliment. The overarching simplicity opens the experience up to people of varying skill levels and familiarity with videogame controls (for brief sessions, if not enthusiastically lengthy ones). Beyond that, it's difficult to recommend for now. It's far from a terrible game – but it mechs no moves towards being a particularly good one, either. ■

**Override 2
is a faster-
paced fighter
than the
first game**

PC GAMER VERDICT

Perhaps an online community would provide a spark for *Override 2*, but as it is, it's pretty rusty.

55

COLD SHOULDER

CALL OF DUTY: BLACK OPS – COLD WAR
can't top *Warzone*. By Morgan Park

Talking to friends and colleagues about a new *Call of Duty* is never the same as our banter about other games. As an annual series defined by incremental changes to a formula, nitpicking is ingrained in the discourse. That's certainly the case for *Call of Duty: Black Ops – Cold War*, a good game that falls short of its predecessor. Instead of being undermined by unforgivable sins, it's an accumulation of smaller flaws, like how guns feel or maps flow.

Despite welcome adjustments to Create-a-Class and a fun (if brief) campaign, *Call of Duty* has been a lot better before. In fact, a better *Call of Duty* game released last year – the free-to-play battle royale madness of *Call of Duty: Warzone*.

Warzone's longevity makes *Cold War* a harder sell. There is no longer a single de facto *CoD*. As of December, Activision has unified progression across *Warzone* and *Cold War* with shared ranks, weapons, battle passes, and cosmetics. A rank gained in one will automatically carry into the other. Both games have prominent main menu buttons that launch into the other, seamlessly bringing your party along as well. By merging into a strange FPS homunculus, *Call of Duty* is, in its own way, evolving into a single service game hub with *Warzone* at its centre.

The tech that binds the two together is impressive, but it's not a steady transition for these wildly divergent shooters. Under different developers and engines, guns that

appear in both games like the M4 and MP5 have mismatched ballistics and recoil patterns. Attachments that look nearly identical don't alter the same stats. Casually switching to *Cold War* after a few *Warzone* matches is

like jumping from a bike to a skateboard – same idea, but different in every way that matters. It's no secret which of these competing philosophies will leave a greater legacy. Activision is betting the series'

future on *Warzone*, and for good reason. *Cold War* is fine, but it's a distraction from the *CoD* I'll still be playing a year from now.

TROUBLESOME TWEAKS

One of *Cold War*'s biggest problems is the time period itself. The '80s setting works in recognisable guns like the MP5 and M4, but the impact on attachments is noticeable. Since red dot and holographic sights were still early tech at the time, there are far fewer long-range options with clear laser sights. The omission of other offbeat modifiers like under-barrel

launchers, weapon perks, and hybrid sights really stings. *Modern Warfare*'s weapons were malleable blueprints. In *Cold War*, I'm tweaking sliders without seeing or feeling a big result. The sense of discovery and experimentation is diminished.

Besides a few neat '80s-era map destinations like Miami or Moscow, the Cold War setting just holds multiplayer back. The weapon selection is a strange middle ground between high-tech and historic that satisfies neither extreme. Is it too much to ask for a humble AK-47 with an under-barrel shotgun and variable thermal scope? Yes, because '80s.

Treyarch's latest take on Create-a-Class does come with a few improvements. Wildcards, class modifiers seen in past *Black Ops* games, let you bend the rules in some fun ways. I enjoy the absurdity of Gunfighter, which lets you stick eight attachments to a gun instead of five, though I suspect most players will stick to the Perk Greed wildcard to score an extra three perks for free.

This is a roundabout way of saying that killstreaks are still around and unfortunately prominent. *Cold War* switches back to the Treyarch-style scorestreaks that account for all points earned, not just kills. Except now, progress toward streaks isn't reset upon death (making 'streak' a total misnomer). Going on a streak will help earn them faster, but the new system allows even a simpleton like me to carpet bomb the map with

NEED TO KNOW

WHAT IS IT?
A spiritual sequel to the original *Black Ops*

EXPECT TO PAY
£50

DEVELOPER
Raven Software, Treyarch

PUBLISHER
Activision

REVIEWED ON
RTX 2060, Ryzen 5
2600 3.4Ghz, 16GB
RAM, Played on SSD

MULTIPLAYER
Up to 40 players

LINK
callofduty.com

One of Cold War's biggest problems is the time period itself

OLD WARS Where does Cold War land on the Call of Duty timeline?

1930s & 1940s

Call of Duty, Call of Duty 2, Call of Duty 3, Call of Duty: World at War, Call of Duty: WWII
You think WWII has been covered enough, Activision?

1960s

Call of Duty: Black Ops
Alex Mason, the numbers and all that jazz...

1981

Call of Duty: Black Ops – Cold War
The events of *Cold War* are nestled between *Black Ops* and *Black Ops 2*'s flashbacks.



1986-1989

Call of Duty: Black Ops 2
Mason and Woods hunt Raoul Menendez in the decades following *Black Ops*.

2010s

Call of Duty 4: Modern Warfare, Call of Duty: Modern Warfare 2, Call of Duty: Modern Warfare 3, Call of Duty: Ghosts, Call of Duty: Modern Warfare (2019)
Things get modern.

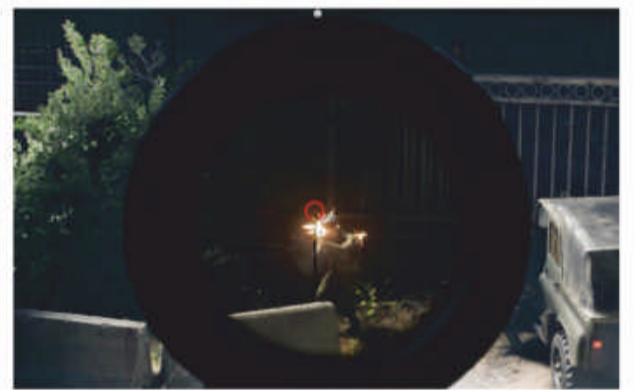
2020-2080

Call of Duty: Black Ops 2, Call of Duty: Advanced Warfare, Call of Duty: Black Ops 3, Call of Duty: Infinite Warfare, Call of Duty: Black Ops 4
Things get futuristic.

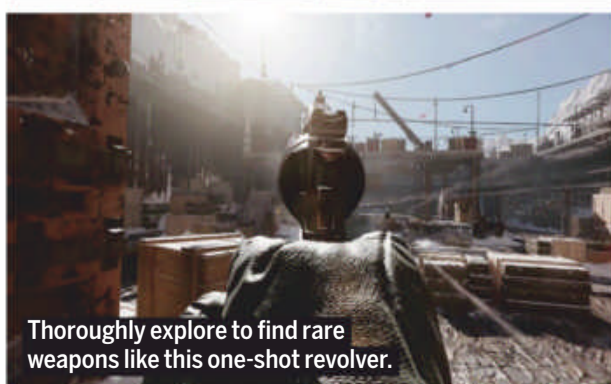
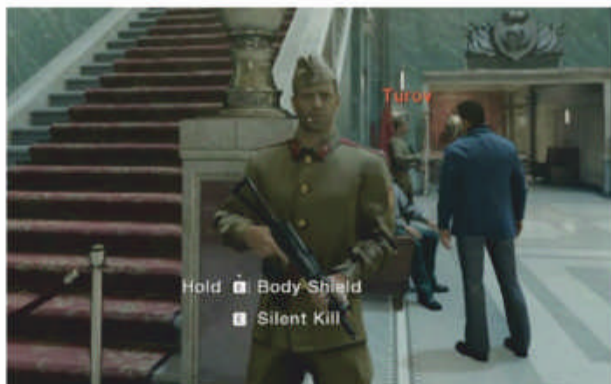
Sniper rifles are dominant in and out of multiplayer.



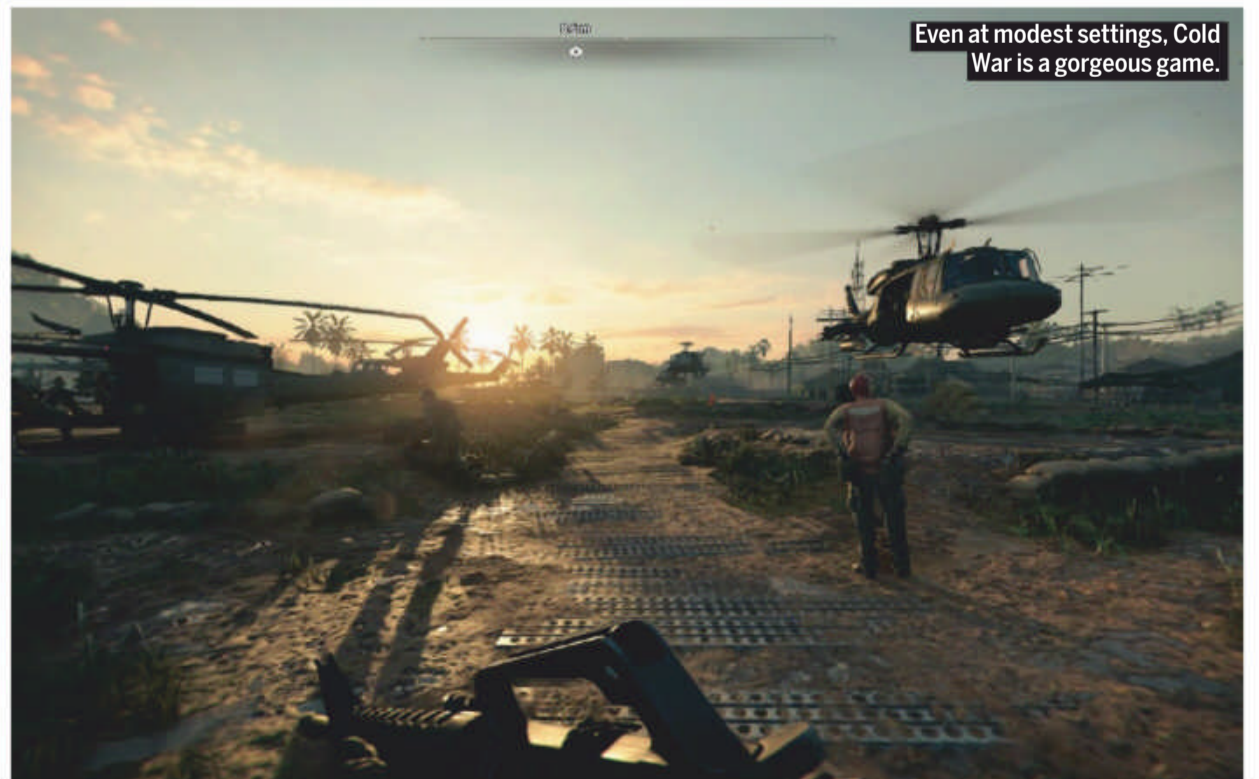
Even the stealthiest missions will erupt into chaos eventually.



Don't skip this arcade where you can play classic Activision games.



Thoroughly explore to find rare weapons like this one-shot revolver.



Even at modest settings, Cold War is a gorgeous game.

Conversing with allies is a welcome respite from explosive missions.



My favourite scorestreak is this deadly flaming bow.



The two 40-player Dirty Bomb maps have the occasional tank.



Splitting Nazi zombie brains has never been better in CoD.



It's not Call of Duty without a few turret sequences.



▶ napalm at least once per match. Ballistics are also a major step back in *Cold War*. *Call of Duty* games have always struggled with low tickrate servers that let you get shot after you've already made it behind cover, but this is the worst it has felt in years. Hit detection is sluggish, taking anywhere between five to seven frames after shooting to register a hit in *Cold War* (*Modern Warfare* had a consistent three-frame delay in my testing). It's hard to tell if this is a consequence of the servers or simply a lower bullet velocity.

Hit detection is only half the reason *Cold War's* guns aren't much fun to shoot. *Modern Warfare* (and *Warzone*, by extension) set a high bar with its bassy, abrasive sound effects. LMGs scream louder than the teammates in your ear, while near-miss shots snap the sound barrier like a rubber band. In comparison, *Cold War's* guns sound like plastic knockoffs. No matter what muzzle I slap on the thing, my AK-47 still rattles like a hollow aerosol can with every shot.

Most modes that you'd expect like Team Deathmatch and Domination are here unchanged and still a good time. I've spent most of my time in the classics out of habit, but also because Treyarch's new offerings are a series of misfires.

VIP Escort is a round-based, single-life mode where one team must escort a VIP outfitted with a pistol to an extraction chopper while enemies hunt them down. I know from other shooters that this kind of mode can be fun, but only with the kind of cooperative team that rarely comes together in random matchmaking. I spent every match praying the VIP wouldn't run straight into a hail of bullets and end the round in seconds. There's also Dirty Bomb, a squad-based, 40-player turf war on big maps. It's sort of like Ground War with the free-for-all squad rules of battle royale. And like Ground War, it's a disorganised mess that I likely won't come back to.

Surprisingly, I will be coming back to Zombies. I've not been a fan of how convoluted the mode became through the years, so I'm glad that *Cold War* gets back to basics. The clutter of power-ups has been condensed to a few Perk machines

MECHANICAL MASHUP

Similarities and differences of CW vs MW



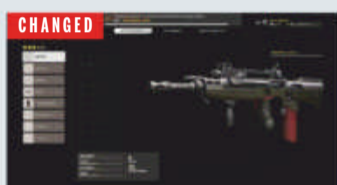
ADS RELOAD

I'm relieved to report that you can still reload while aiming down sights in *Call of Duty: Black Ops – Cold War*.



BLUEPRINTS

Cold War follows the same cosmetic model as *MW* with blueprints that award unique skins and custom gun loadouts.



GUNSMITH

While similar to *Modern Warfare*, *Cold War's* attachments modify different values than players are used to.



SCORESTREAKS

Treyarch has switched back to scorestreaks in *Cold War* with the additional wrinkle that the score doesn't reset upon death.

scattered throughout the map and ultimate-like abilities that can be permanently upgraded out-of-game. Less time spent saving up for perks gives me the freedom I desire to waste credits on the mystery box trying to score a ray gun.

The granularity of *Cold War's* settings cannot be overstated

The granularity of *Cold War's* settings cannot be overstated. There are graphical options for everything under the sun – this is the first ray traced game I've seen with separate values for ray traced sun shadows, local shadows, and ambient occlusion. There's also the absurdly specific 'monitor distance coefficient' slider for standardising mouse sensitivity across every zoom level. I'd never given my monitor's coefficient a second thought, but I'll never make that mistake again! For the rare controller player on PC, there's a mile-long list of sliders to tune stick acceleration and aim assist.

ALL THE PRESIDENT'S MEN

It's almost impressive how close *Call of Duty's* campaigns come to originality without ever actually changing. When it was first announced, I was hopeful that *Cold War* (the first campaign led by Raven Software) could be an opportunity to move past the helicopter crashes,

turret sequences, and slow-motion door breaches that could fill a *Call of Duty* bingo card. *Cold War* still does literally all of that, but it's not completely devoid of espionage.

One early mission, Brick in the Wall, is almost exclusively spent sneaking through the streets of East Berlin looking for a lead on the story's villain, a deep-cover Soviet agent codenamed Perseus. In this one mission, *Cold War* flirts with a bunch of un-*Call-of-Duty* things like enemy tagging, stealth takedowns, and even a lockpicking minigame. It's pretty darn cool! But it's over in minutes, just in time for a bombastic firefight.

Filling the gaps between *Cold War's* interesting moments are largely forgettable missions furthering a perplexing plot that... just suddenly ends? I won't say too much about the later twists, but I was disappointed by its core revelations and the multiple endings they hinge on (which are so abrupt that they feel unfinished). For a story that kicks off with a freshly-inaugurated Ronald Reagan christening an illegal kill squad, the plot is pretty milquetoast.

Regarding the Reagan in the room, his prominence in *Cold War's* marketing doesn't square with the single, very bad cutscene in which he appears. Watching the president at the centre of the Iran-Contra affair, which funded war crimes, monologue about our "thankless heroes" and "necessary measures" didn't give me the patriotic goosebumps that I suspect Raven was going for when it was written.

Activision is in a confusing place with its proposed multi-*CoD* future. The publisher has its feet firmly planted in two camps – happy to update *Warzone* as a live service game, but still keeping a firm grasp on the annual release schedule. It's trying to thread that needle by selling *Cold War* like it's some sort of *Warzone* expansion pack. It's not, but it's just as unnecessary. I'm curious to watch the next year unfold as two conflicting shooters intertwine (at least until whatever's next). Who would've thought that *Call of Duty's* biggest competition would be itself? Videogames are weird that way. ■



PC GAMER

VERDICT

Call of Duty: Black Ops – Cold War is an inessential distraction from the best *Call of Duty* on offer.

69

YU KAY, HUN?

An intergalactic love affair
in **HAVEN**. By Emma Davies

We've all fantasised about getting away from it all, haven't we? Dropping out of the daily grind, the forced small talk and the pressures of civilised living; simply escaping with our favourite person and carving out our own space in the universe. The difference with Yu and Kay is that they've actually gone and done it – although the reality they're facing is less 'remote luxury villa in the Maldives' and more 'broken spaceship on a smashed-up planet'.

Haven is an RPG/visual novel that charges you with exploring Source – as the couple have named their new home world – hunting for components to fix up their battered ship and uncovering its sinister mysteries. The planet is made up of separate chunks of landscape that you need to recce, interconnected by a series of portals called flow bridges.

The movement is satisfying, floaty and speedy with smooth drifting and snappy U-turns. Following 'flow threads' – wiggly blue lines zig-zagging their way across the environment – recharges your batteries and occasionally lifts you upwards to otherwise inaccessible areas.

Each islet you encounter is initially covered with crimson rust, which needs clearing up. Doing so is a simple (and sometimes dull) case of zooming across it, picking up chunks of material that can be put to use in repairs. The presence of rust also happens to enrage the planet's native critters, who seem to have made a group decision to take their frustrations out on you.

What ensues with each encounter is a brief scuffle with wildlife gone rogue, playing out in a simplified JRPG combat framework. Using one controller stick to trigger an action for each character, you select from a couple of attacks and a block to batter the opposition into unconsciousness – at which point you can pacify them and send them on their merry way. Syncing up for a dual attack maximises damage, and it's often a

good plan to use one to shield the other as they bash away, but the limited moveset means that these scuffles quickly become repetitive.

Haven is, at its core, a game more about loving than fighting

TOGETHERNESS

Still *Haven* is, at its core, a game more about loving than fighting – and it does a great job at this. Yu and Kay's relationship is the central element here, and it's skilfully handled. Their banter

is easy and natural, running from mundane bickering through to tender nostalgia. It doesn't shy away from the more intimate moments, either, although it thankfully does stop short of cringe-inducing graphic scenes.

NEED TO KNOW

WHAT IS IT?
An RPG/visual novel mash-up

EXPECT TO PAY
£19.50

DEVELOPER
The Game Bakers

PUBLISHER
In-house

REVIEWED ON
GTX 970, Intel Core i5-4670k, 8GB RAM

MULTIPLAYER
Co-op

LINK
bit.ly/37EwBS

Everything the couple do together – from combat to conversation – helps to strengthen their bond. A particular favourite activity is cooking and eating together, with meals boosting their closeness by varying amounts depending on the tastiness of the dish. Once you've filled up the bond meter, Yu and Kay celebrate by drinking a little home-brewed hooch and getting a little frisky – levelling up their stats as a result.

Their conversations serve up the majority of the plot exposition throughout the game. It feels organic rather than forced, and each intriguing reference to the world they've left behind or why they might have headed off on the run leaves you keen for more. Moments like these were my favourite part of *Haven*. I loved spending the game's evenings simply pottering about the Nest, their spaceship home, watching them fix up dinner, muse about what-might-have-beens or grouse over whose turn it was to clean the shower. Alas, the outside world beckons if you want to make any progress.

My biggest issue with the aforementioned outside world was that I'd have liked more variety. Exploration quickly began to feel more like a chore than something compelling. It does look great, though, with its painterly vistas and soothing colours, and it's all accompanied by a gently pulsing, synth-laden soundtrack.

Haven's central premise is solid: a relatable couple in an extraordinary situation, rooted by an interesting backstory. The visual novel elements are well implemented, with enjoyable dialogue and a relationship that you do feel invested in, but the role-playing is a little too slight to really get your teeth stuck into. ■

HOME SWEET HOME

A tour of the Nest



1 SYNTHESIZER
Handy for brewing up your own medpacks.

2 SEATING AREA
The perfect spot to hear about your honey's day.

3 BEDROOM
Where the magic happens...

4 KITCHEN
What's for dinner? Roasted appledews or glazed boba?

PC GAMER VERDICT

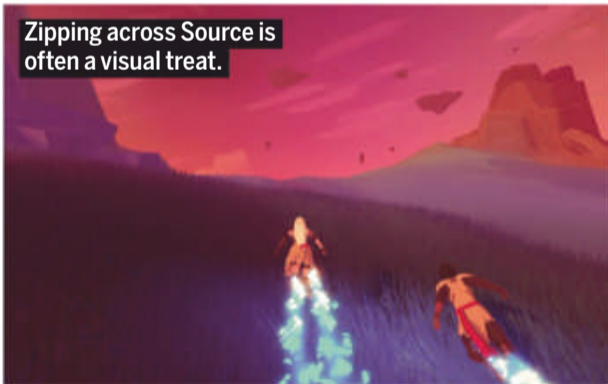
Haven is a relaxing distraction that's at its best when focusing on the romance, but falters as a JRPG.

72

Camping under the stars:
necessity or date night?



Zooming across Source is
often a visual treat.



Flow bridges enable you
to nip between islets.



Cooking together helps Yu
and Kay to bond.



Once pacified, wildlife is
cute and friendly.



COOL TITLES FOR NO CASH by Tom Sykes

The animation is fantastic, contributing greatly to the comedy.



One of the guests is a private detective named Herman Merman.



POINT-AND-SLICK

Murder goes off the rails in comedic mystery **LOCO MOTIVE**

You'd hardly know that *Loco Motive* was created in just a fortnight for the AdventureX game jam, as it tells a measured, comedic murder mystery, brought to life with colourful characters, witty dialogue and puzzles that hit the sweet spot when it comes to difficulty.

True to the title, the game takes place on a luxury steam train owned by the wealthy Lady Unterwald, who has come aboard to make a speech to her assembled family and employees. Naturally, she pegs it before said speech has even begun, and it's left to her personal lawyer Arthur Ackerman to solve her grisly murder, by retrieving the will he so carelessly loses at the start of the game. As Arthur, you'll chat to the suspects (a bunch of scenery-chewing stereotypes drawn from classic detective fiction), solve puzzles, and generally enjoy a thrilling adventure. It's a complete story, but in miniature, requiring only around half an hour of your all-too-precious time.

I play a lot of small adventure games developed in a short time frame, and they tend to offer only sketches or morsels of story, supported by (often exquisite) pixel

art. *Loco Motive*, too, is gorgeous, but it also feels like a satisfying, meaty adventure, replete with a handful of puzzles, enough locations to keep repetition from setting in, and exciting set-pieces to bookend either side of the story. There's a touch of Guybrush Threepwood to Arthur, who doesn't go about things like a typical detective. You know, by finding clues, contradicting witness statements, and waving an accusatory finger at the dastardly culprit.

More of a parody than it is a faithful murder mystery

No, he more or less stumbles towards the conclusion by combining items and then using them in preposterous ways. This is a game about getting hold of a will more than it is about uncovering a murderer, and while it's an excellent, compact adventure game, it is a wee bit unsatisfying as a murder mystery.

You're not really given enough information or clues to be able to

NEED TO KNOW

WHAT IS IT?
A point-and-click murder mystery set on a train

EXPECT TO PAY
Free

DEVELOPER
Robust Games

PUBLISHER
In-house

REVIEWED ON
AMD A4-6300@3.7GHz,
6GB RAM, GeForce GT 610

MULTIPLAYER
No

LINK
bit.ly/LocoMotiveGame

theorise about the murderer, and we never learn quite enough about the suspects for them to feel truly involved in the mystery. After the first couple of (witty) conversations with them, they become mere set dressing as you work towards the conclusion.

WHERE THERE'S A WILL...

Instead, you're occupied with busywork: with concocting a dangerous cocktail to have a natter with a drunken sot, or combining a suitably long pokey thing to reach out an open window. These puzzles are all very *Monkey Island*, all very enjoyable, but many of the characters do feel under-utilised as a result.

Loco Motive is a more of a parody than it is a faithful murder mystery, putting the player in the role of someone who has to clear up a mess, while also bumbling towards a typical mystery conclusion. It won't give your deerstalker much of a workout, then, but it's still a charming and gorgeous period adventure game. ■

PC GAMER VERDICT

Loco Motive is a great adventure game that's less great as a murder mystery, but still very worthy of your time.

82

FOLK ART

Brief but effective rural horror in **HULDUFÓLK**

The developer of *Huldufólk* has pulled out all the stops when it comes to the game's presentation. This is a PS1-styled horror game that features choreographed 3D cutscenes, a well-produced soundtrack, and a blocky, warped world dripping with rural atmosphere. All very impressive circa 1995, and really rather impressive again in 2020, when such nostalgia is usually inconsistent, or puddle-deep.

You play as an archaeologist dispatched to the Faroe Islands to survey a building site. The owner of the farmhouse you're staying at quickly fills you in on a local legend: of the huldufólk, or hidden folk, who are said to dwell on the islands, and who, he warns, are best left alone. Huldufólk are real (well, you know what I mean) creatures of Faroese and Icelandic folklore: elf-like and

invisible, except when they don't want to be. And they just *might* be at that building site...

Huldufólk delivers with its build-up. The farmhouse environment is detailed and feels convincingly remote – the perfect locale in which to hear about the legend, as you anticipate some dreadful supernatural encounter. Before long, you arrive at the building site. You take a few spooky pictures, and then you head for an ominous cave. Before you know it the game is over, with one final, admittedly impressive cutscene. But it's so abrupt, and quite deflating after all that tense build-up. Perhaps the huldufólk could be convinced to appear in a sequel?

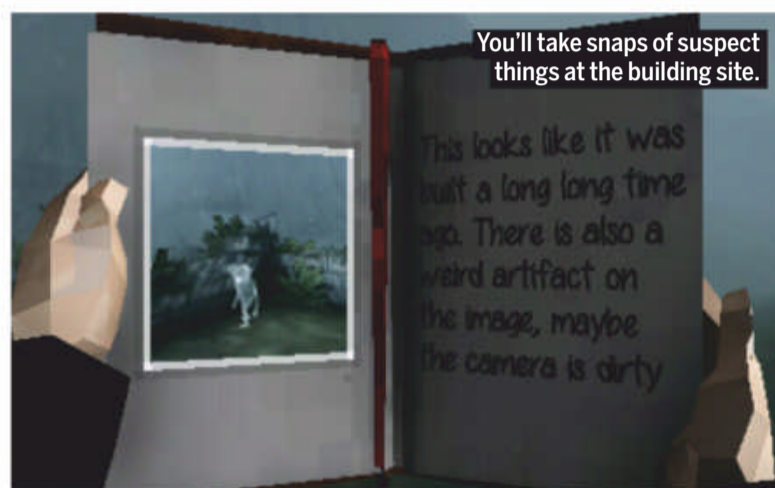
I'd still recommend this to fans of folk horror. There's a feeling of quiet dread here I've not encountered in many games. ■

67



It's a game of obsessional details, such as these cute polygonal sheep.

Oh the B&B host must be a shepherd, a lot of cool sheep here..



You'll take snaps of suspect things at the building site.

This looks like it was built a long long time ago. There is also a weird artifact on the image, maybe the camera is dirty

NEED TO KNOW

EXPECT TO PAY
Free

DEVELOPER
RBD Interactive

LINK
rbdinteractive.itch.io

MAGIC MOMENTS

Silly sci-fi fun in **INTERGALACTIC WIZARD FORCE**

This bizarre adventure game plays out like a half-remembered episode of *He-Man*, if it had been recreated by the folks behind *Rick and Morty*. You're the heroic Prince Xandar – a gullible beefcake – but also his crotchety wizard pal Maldrek, on whom he rides through space on a sort of intergalactic piggyback. It's a very 1980s sci-fi story: luridly colourful, visually arresting, and deeply, deeply silly.

After crashlanding on a planet, you have to get to the bottom of some disappearances, using the magical powers at Xandar and Maldrek's disposal. The verbs, and indeed the items of the usual adventure game have been replaced here by 'spells', which are really make-believe actions by the deluded protagonists – for instance, Xandar's levitation spell involves him hopping into the air,

while Maldrek's special force bolt projectile is really a bullet. You'll get a few fun responses as you try these actions out in the world, and they're used in a handful of involving puzzles before you reach the ridiculous conclusion – and, of course, in some neat jokes along the way. It helps that the game has full voice acting, and that the performances are consistently solid.

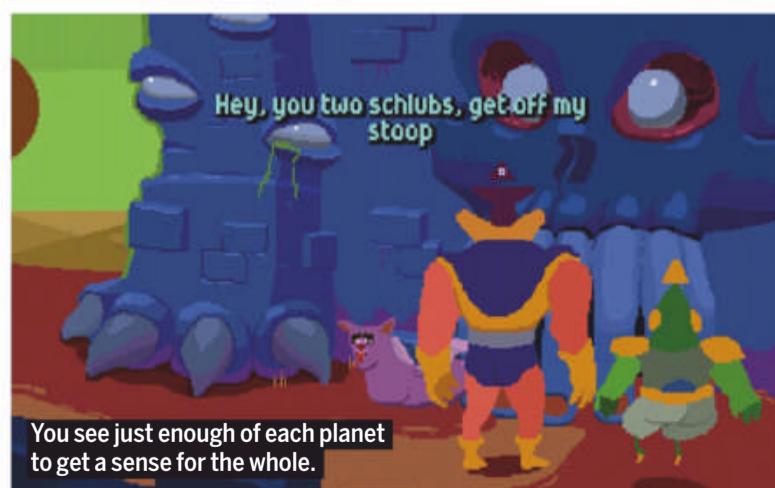
Despite taking place on just a few screens, *Wizard Force* feels much bigger than it is: like a standalone episode in the ongoing adventures of a couple of colourful space-twerps. That's down to the characters, the silly but cohesive world, and puzzles that cause you to investigate both planets deeply. I'd happily play more games featuring Xandar and Maldrek, particularly if they're as funny, stupid, smart, and slickly designed as this one. ■

75



This is the bold, nonsense fantasy of an '80s cartoon.

Onward, Maldrek!



You see just enough of each planet to get a sense for the whole.

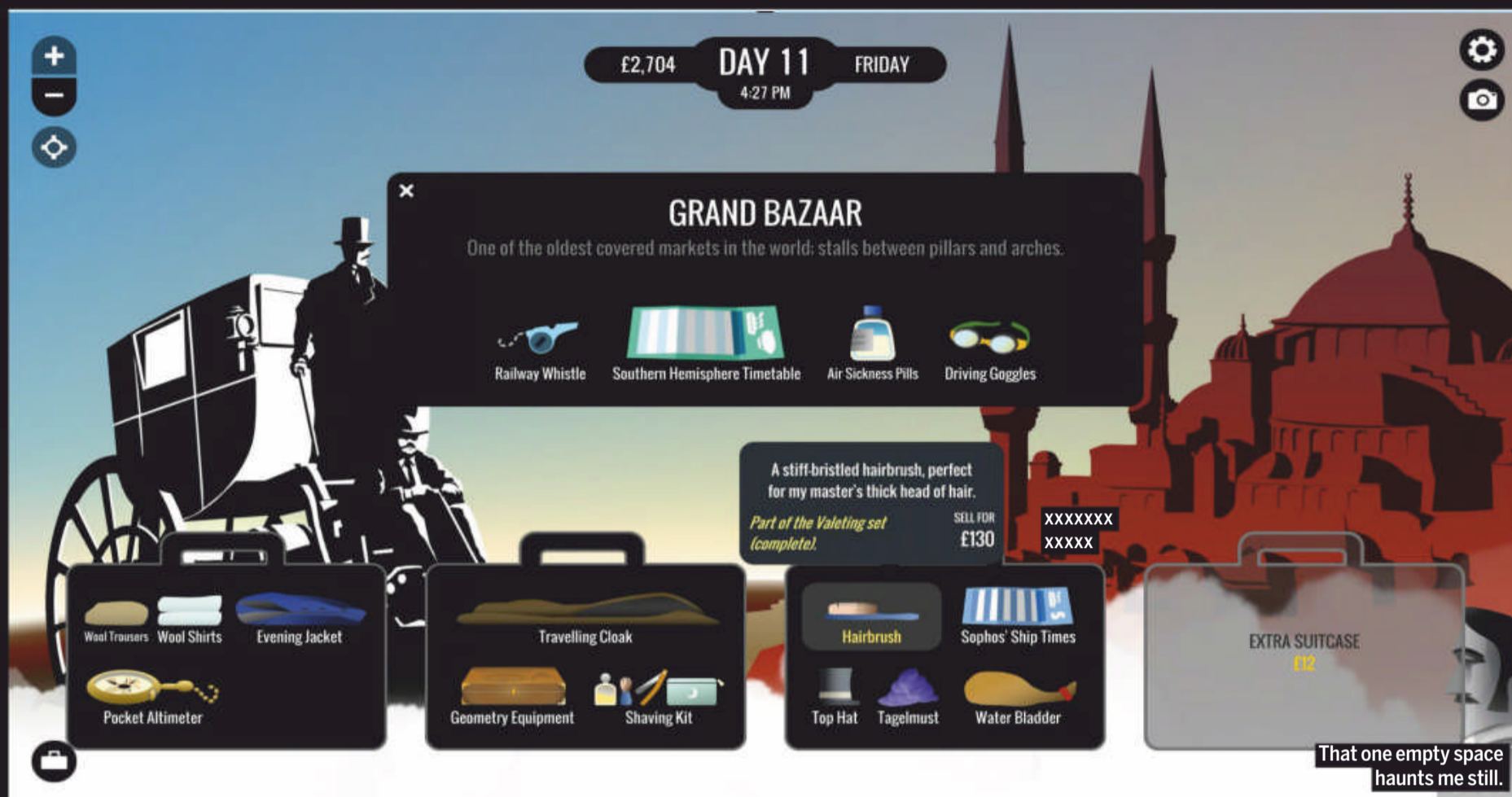
Hey, you two schlubs, get off my stoop

NEED TO KNOW

EXPECT TO PAY
Free

DEVELOPER
Powerhoof

LINK
powerhoof.itch.io



TRAVELLING FOGGLIGHT

Profit, packing, and Pacific adventures in **80 DAYS**

Sometimes a game will reveal the most unexpected facets of a player's character. Two of these become apparent to me playing *80 Days*. Firstly: being forced to prepare for a long trip in no time at all is like 'Anxiety Dream: The Game'. Secondly: I'd be quite happy playing a valet simulator that rewarded me for impeccably packed luggage. Extra points for socks stored in shoes or expansive use of tissue paper. We don't even need to travel anywhere.

Inkle's *80 Days* has some of that, in that I'm forced to select chattels and fit them into our limited luggage space. And like everything else in the game, it's a trade off. You can buy more suitcases, of course, but then you have to pay for extra storage on your journeys. Leaving anything out of my suitcase makes it feel like all the essentials are having a party and I'm not invited, so I chose to travel heavy. Who knows when we might need a third top hat?

The servile *butleryness* of *80 Days* plays with this balance perfectly. I'm a valet. I can't have my gentlemen traversing the globe with a proto-beard, for instance, so I insist on taking the shaving kit everywhere. And any time Fogg sits still for more than 30 seconds I'm taking a razor to that privileged face. A smooth jawline

prevents unnecessary wind resistance. Every second counts.

This borderline obsession with accoutrements is also handy when it comes to managing our finances. By conversing with the correct people I discover which items will sell handsomely in other locations. It does mean that we change course so I can pawn a mechanical woodlouse in Manila, for example, but we're mostly headed in the right direction. I'm also

delighted at how pleased Fogg is with my business acumen.

CLOSE SHAVE

There are moments in my first journey around the globe where I get the chance to take centre stage as *Passepartout* – such as when a rather unnecessary mutiny leads to me becoming ship's captain, for instance

It's a vivid game, that feels thick with alternative choices

NEED TO KNOW

WHAT IS IT?

A crushing reminder I was born to serve, not lead

EXPECT TO PAY

£10.30

DEVELOPER

Inkle Ltd

PUBLISHER

In-house

REVIEWED ON

Intel Core i7-7700 CUP @ 3.60GHz, 16 GB RAM, NVIDIA GeForce GTX 1070, Windows 10

MULTIPLAYER

No

LINK

bit.ly/38cYCEM

– but I prefer the smaller moments in *80 Days*: the muted midnight conversations after Fogg has gone to bed; the walks through richly described steampunk versions of Middle Eastern metropolises. It's a vivid, dense game, that always feels thick with alternative choices. Time and capitalism keep my path narrow on the first run, but I'm already looking forward to exploring every enticing back room and suspicious balloon ride in future games.

I also get a lovely sense of scale and place. It makes me realise how huge the Pacific Ocean is. 'Planet is big' shouldn't feel like a shocking revelation, but *80 Days* does a fine job showing how. I think I'm making great progress until I realise I haven't even reached America yet, which also happens to be inconveniently huge. The memory of shoving top hats and cloaks into our bags feels distant, even if it was only an hour ago – a fact I contemplate as I give Fogg his eighth shave of the day. ■

PC GAMER VERDICT

80 Days is a dense, rewarding, and awe-inspiring piece of escapism which also lets me neatly pack luggage.

90

JUST DESERTS

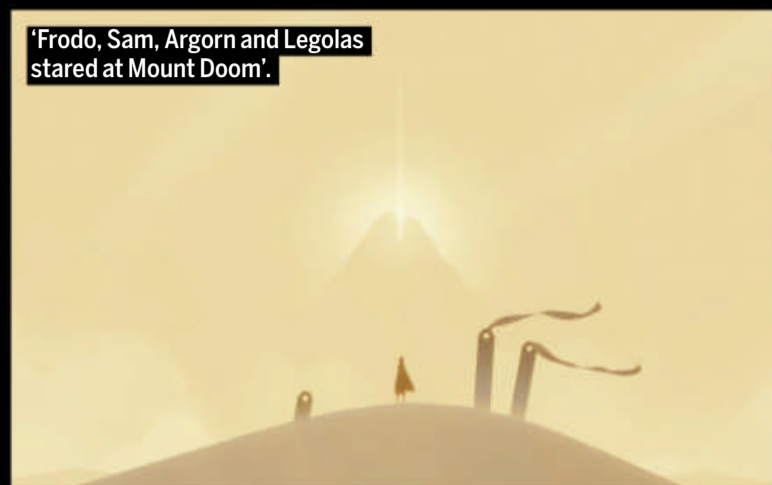
JOURNEY is as satisfying than ever

This is one of those games that's lovely to play but difficult to write about without sounding like the sort of person who uses words like 'ilting' in conversation. Very little happens, but in a way that makes you nicely introspective – like being stranded at an unknown train station on a crisp, cold day. There are few distractions here other than the gorgeous, shimmering skylines. And the game's unwavering goal of moving towards a distant mountain is refreshing – even more so in this world of crafting and sidequests and squad goals. You jump around. Manipulate magical rags. Learn about a lost world. And while it does build to a lofty emotional climax, it's a pleasant game to play rather than an overwhelming one. You don't need to put *Journey* off until you're emotionally ready. It's unlikely to change how you see the world. But every second you spend in

its company will ultimately feel worthwhile, not least because it has absolute respect for your time. At a svelte sub-two hours, *Journey* is one of those wonderful games you can tick off in a single evening. That makes it sound slightly like a simple DIY chore, but it's much more than that. It's a unique pleasure to play – just existing in its world is uplifting.

Although I might be the only person in the world not all that keen to share this experience with a stranger. I'd rather make the trip alone and not stress about slowing a partner down, even if *Journey's* dialect of mellifluous 'fleps' and 'pleeps' is musical enough to add to the experience rather than detract from it. And there it is: 'mellifluous' is as bad, if not worse, than 'ilting', proving that *Journey* is a game so good it's difficult to talk about it without sounding like a prick. ■

89



'Frodo, Sam, Argorn and Legolas stared at Mount Doom'.



When the receipts fall out of your mum's handbag.

NEED TO KNOW

EXPECT TO PAY
£11.40

DEVELOPER
thatgamecompany

PUBLISHER
Annapurna Interactive



The worst thing is knowing this is bad, but not why.

MINI METRO

I appreciate how much trust *Mini Metro* has in me. It's supremely confident in my ability to translate its clean, satisfying world of shapes and lines into something approaching a functional transit system. I'm delighted to report that trust was entirely misplaced. My first run ends swiftly with a crush of angry passengers spilling off the platform. And the fact I'm this embarrassed to have made the triangles angry is a measure of how compelling *Mini Metro* is in spite of its limited toolset. And similar to how the game makes me feel I've lied on my TFL job application, don't believe anyone who tells you this is 'relaxing'. For me, it's a failure simulator dressed up as a Tube map. ■

76



In Mafiatown, polite graffiti is a crime.

A HAT IN TIME

This one makes the cut because time travel is still a form of travel. It's a bright, bold, chunky 3D platformer that's overstuffed with Nintendo-like ideas – a Kickstarter game that crams in every single influence imaginable. Sometimes it feels like a jumble – the opening levels of Mafia Town are the platformer equivalent of a batteries and USB stick drawer. But there's so much love for an evaporating genre here it's difficult not to be moved by the pull of the developer's enthusiasm. It's never as polished as the titles that inspired it – I feel like I'm floating through the world, rather than inhabiting it – but *A Hat In Time* is too pleased with its existence for me to care. ■

70



This is how Elon Musk likes to fish.

FORZA HORIZON 4

It's impossible to describe *Forza Horizon 4* as boring, since it's an exhilarating sandbox racer. But for a UK resident, I can't help but love how comfortingly familiar the setting is. Yes, it's nice to drive around places I'll never visit in real life, but there's also an analgesic relief to seeing familiar environments in a game – like picking your favourite thing off a menu, rather than worrying about trying something new. *Forza's* peerless racing is the lamb bhuna in this analogy, the setting a peshwari naan. Delicious. ■

88

IF I HAD SOMEWHERE TO LIVE...

I COULD GO ANYWHERE IN LIFE



When Abi's mum died, life got tough. She didn't get on with her dad and the arguments became violent. Abi felt her only choice was to leave home. With just the clothes on her back, and no idea where to go, she ended up sleeping on the streets in the freezing cold.

Right now, you could give a homeless young person like Abi somewhere to start their future

Abi's life changed when she was given a room at Centrepont. A safe place to sleep and recover. A place to develop the skills and confidence she needed to rebuild her life – and leave homelessness behind for good. Now, Abi believes she can go anywhere.

Thousands of homeless young people like Abi are desperately trying to find their place in the world – but first they need a place to start again. **You could help right now by sponsoring a room at Centrepont for just 40p a day.**

We know this support changes lives. 88% of the young people we help move on positively in life. So please, help someone like Abi today. **Thank you.**

Text PLACE to 78866 to donate £3

Call free on 0800 472 5798

Visit centrepont.org.uk/place

Or complete and return the form below

SPONSOR A ROOM. HELP A HOMELESS YOUNG PERSON FIND THEIR PLACE.

YES, I WANT TO SPONSOR A ROOM FOR £12 A MONTH

Please collect my payment on the 1st/15th of every month (please circle preferred date).

Instruction to your Bank or Building Society to pay by Direct Debit

To the Manager:
Name and full address of your Bank or Building Society:

Originators Identification No. 6 5 9 1 0 7

Postcode

Name(s) of Account Holder(s)

Bank Sort Code: - Account Number:

Instructions to your Bank or Building Society: Please pay Centrepont Direct Debits from the account detailed in this instruction, subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with Centrepont and, if so, details will be passed electronically to my Bank/Building Society.

Signature(s) Date

Banks and Building Societies may not accept Direct Debit Instructions for some types of account.

Increase your donation by 25p for every £1 you donate with Gift Aid

By ticking this box I confirm I am a UK taxpayer and want Centrepont to Gift Aid all donations I've made in the last four years and any donations I make in the future until I notify you otherwise. I understand that if I pay less Income Tax and/or Capital Gains Tax in any tax year than the amount of Gift Aid claimed on all my donations it is my responsibility to pay any difference.

Your name and address are needed to identify you as a current UK taxpayer.

Full Name: _____

Address: _____

Postcode: _____ Telephone: _____

Email: _____

Thank you for donating to Centrepont today.

We'd love to show the impact of your support and share how young people continue to need your help, through newsletters, fundraising appeals and information about events. Please let us know how best to stay in touch with you by adding your details above, and ticking the relevant boxes:

Please contact me by email Please contact me by phone

Last year our supporters helped us change the lives of over 15,000 homeless young people. By letting us know we can count on you, we can continue helping young people with a home and a future.

Your privacy is key.

We promise never to sell or swap your details, and will always keep them secure. You can view our Privacy Notice in full at www.centrepont.org.uk/privacy. You can opt out of post and change how we communicate with you at any time. Please call 0800 232320 and speak to one of our friendly team or email supportercare@centrepont.org to do this and ask us any questions.

Please return this form to: **Freeport Plus RTXY-LBEA-UTJJ, Angel Fulfilment Services Ltd, Communication Centre, Par Moor Road, Par PL24 2SQ.**

Registered office address: Central House, 25 Camperdown Street, London E1 8DZ.
Company no. 1929421. Registered Charity no. 292411. Housing association no. H1869.
VAT registration no. 649 345 018.



HARDWARE

GET THE HARDWARE GAMES DESERVE



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GROUP TEST

The best CPUs AMD and Intel have to offer.



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BUYER'S GUIDE

Putting a new machine together? Check out our recommended builds.

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TECH REPORT

The future of PC cooling systems may be electronic blood...



GROUP TEST

GAMING CPUs

Fire up your rig with the best CPU for gaming. *By Alan Dexter*

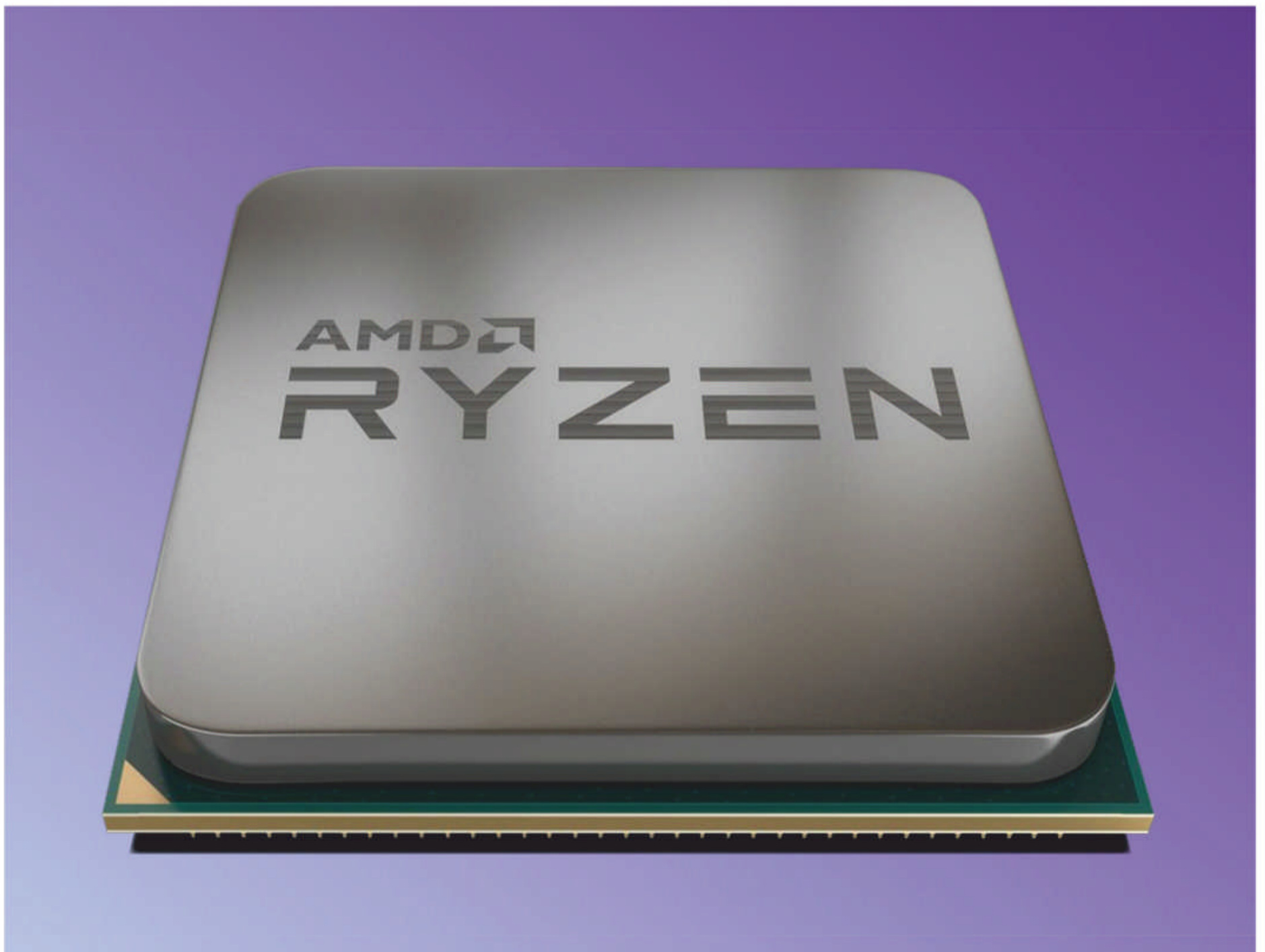
Traditional wisdom dictates that if you want the best gaming performance there is really only one option: Intel. That thinking is now outdated. With the release of AMD's Zen 3 architecture and its Ryzen 5000 family of chips, there is now nothing between Intel's finest and

AMD's latest. Some games may favour one over the other, but we're talking a few frames here and there on average. Intel has lost its gaming crown.

This is good news for us gamers, as it means there is now genuine competition between the two chipmakers, and that has already lead to Intel's prices tumbling.



AMD
RYZEN



Ryzen 9 5900X

AMD **£549**

The best all-round CPU for gaming and streaming

1 AMD's new Zen 3 architecture boasts a sweet 19 percent IPC improvement over its predecessors. For us gamers that means AMD can now stand toe to toe with Intel when it comes to gaming. Honestly, there's so little between these two now that anyone claiming otherwise is simply delusional.

Whatever resolution you're gaming at, this processor can handle it, and keep your graphics card of choice fed with lots of juicy frames. The fact that this is a 12-core, 24-thread monster means that it can cope with anything else you throw at it as

well. So if you have dreams of 3D rendering, video editing, streaming your gaming, or any other serious tasks, you'll know that you have the raw grunt to handle it. The fact that it won't hold you back when gaming just makes it even sweeter.

The only real downside to this is how much it costs, but you absolutely get what you pay for, and this is a phenomenal chip for gaming and anything else you might want to do.

PC GAMER VERDICT

- The best CPU for gaming
- Awesome performance throughout
- Fast and efficient architecture

SPECS CORES: 12 / THREADS: 24 / BASE CLOCK: 3.7GHZ / BOOST CLOCK: 4.8GHZ / OVERCLOCKING: YES / L3 CACHE: 64MB / TDP: 105W / PCIE 4.0 LANES: 20

Ryzen 5 5600X

AMD **£299**

The best CPU for gaming on a reasonable budget

2 Everything that's great about the 5900X rings true for this more affordable Zen 3 chip – you'll hit the same frame rates in games as you will with our number one pick. Top tier performance from the most affordable Zen 3 CPU? We'll say yes to that every single day.

It does have half the core count of the 5900X, rolling in as it does with 6-cores and 12-threads, but this is only an issue with more serious workloads, and for more reasonable stuff this is more than sufficient. You could argue that gaming could go beyond the 12-threads we have here, but there's no evidence of that yet,

and that's despite the fact that the next-gen consoles are rocking 8-cores and 16-threads.

The Ryzen 5 5600X also bucks the trend of the Ryzen 5000 family by shipping with a Wraith Stealth cooler, so you don't have to drop extra money on a third-party chiller. You don't need to, but if you do, you'll hit higher clocks for longer and also open up the wonderful world of overclocking, which could make it worth your while.

PC GAMER VERDICT

- Awesome gaming performance
- Great value for money
- Wraith Stealth included

SPECS CORES: 6 / THREADS: 12 / BASE CLOCK: 3.7GHZ / BOOST CLOCK: 4.6GHZ / OVERCLOCKING: YES / L3 CACHE: 32MB / TDP: 65W / PCIE 4.0 LANES: 20



Core i7 10700K

INTEL £368

Intel's best gaming CPU is a great value proposition

3 The Core i7 10700K is Intel's best 10th gen gaming CPU. It trades blows with AMD's new Ryzen 7 5800X, which is another 8-core, 16-thread processor of the 7nm Zen 3 variety, but represents better value for money.

It's not as powerful in serious applications, but in terms of pure gaming, there's really not a lot in it. This is basically \$70 cheaper than AMD's similarly capable chip, and that's money that could be better spent elsewhere.

Where Intel does have more of an edge is in the overclocking stakes. AMD processors don't have a lot of overhead in them,

while you can easily push the 10700K over 5GHz on all cores, and without melting through the heat spreader either.

AMD does bring PCIe 4.0 support to the party, though it's worth noting that despite Nvidia building it into the Ampere RTX 30-series cards it doesn't have a whole lot of impact in terms of gaming performance just yet. What it will do is allow you to use the highest performing PCIe 4.0 SSDs, which is neat.

PC GAMER VERDICT

- Great stock performance
- Full HyperThreading
- Solid overclocking

SPECS CORES: 8 / THREADS: 16 / BASE CLOCK: 3.8GHZ / TURBO CLOCK: 5.1GHZ / OVERCLOCKING: YES / L3 CACHE: 16MB / TDP: 95W / PCIe 3.0 LANES: 16

Ryzen 7 5800X

AMD £449

A great mid-range chip for serious work and gaming

4 In the alternate universe where Intel doesn't exist this is an incredible chip that would easily make it into our top three recommendations. It's great for gaming, producing the same figures that can be seen for the 5900X and 5600X, but it also appears to hit the sweet spot in configuration terms, with its eight cores and sixteen threads surely seeing it right for the future, because that is what the Xbox Series X and PlayStation 5 consoles are rocking.

Unfortunately for AMD, Intel does exist, and the blue company's Core i7 10700K matches this in plenty of the

more important metrics but has this chip beat in one major way – value for money. This is faster in serious tasks, and if that's what you've got an eye on, then buy this and don't give it a second thought. But if you're mainly looking at gaming, Intel does pretty much the same but costs less. And that's hard for AMD to get away from.

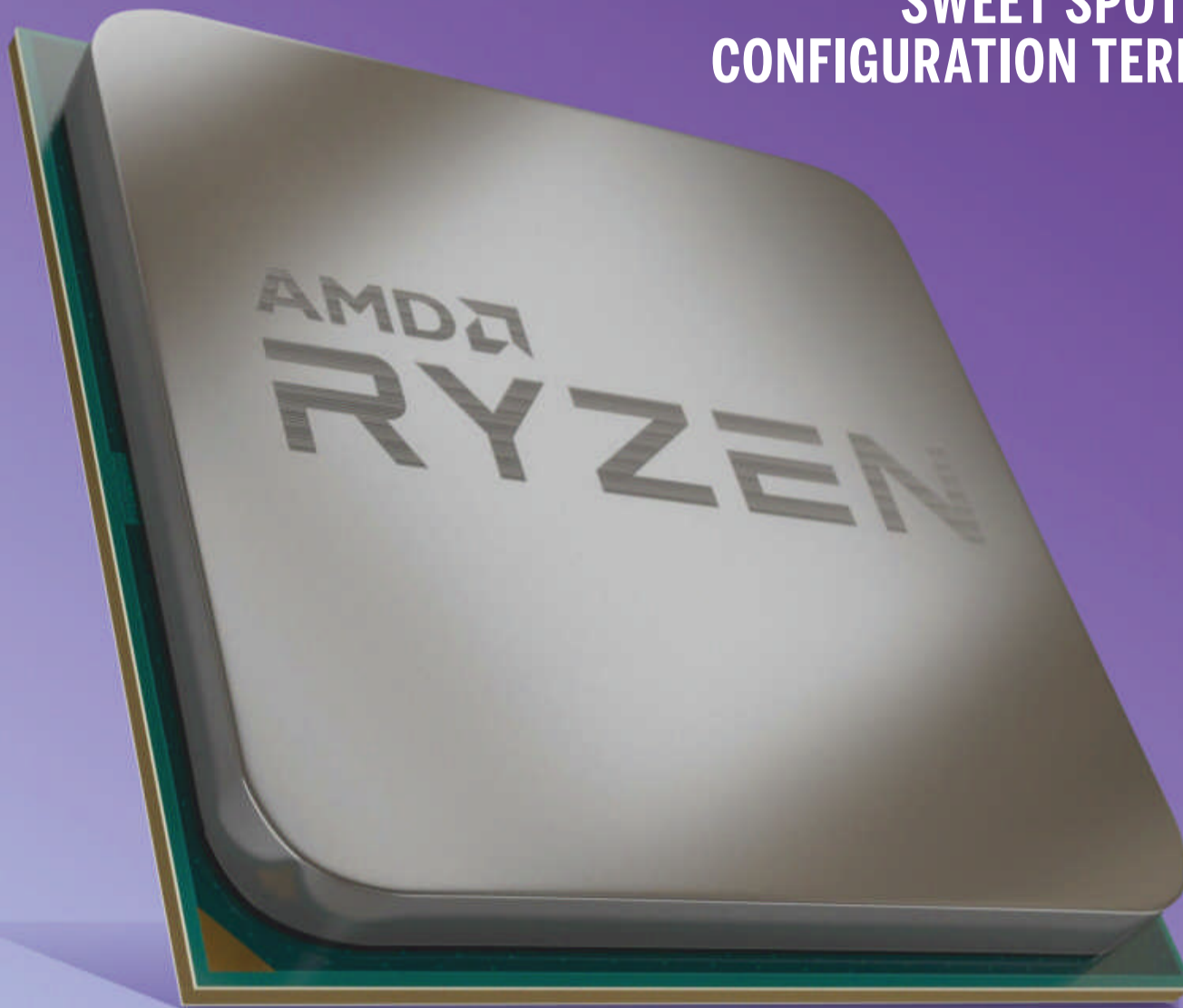
This is still a great Zen 3 chip either way and includes support for PCIe 4.0 for next-gen SSDs.

PC GAMER VERDICT

- The same great Zen 3 architecture
- Awesome gaming performance
- PCIe 4.0 support

SPECS CORES: 8 / THREADS: 16 / BASE CLOCK: 3.8GHZ / BOOST CLOCK: .7GHZ / OVERCLOCKING: YES / L3 CACHE: 32MB / TDP: 105W / PCIe 4.0 LANES: 20

APPEARS TO HIT THE SWEET SPOT IN CONFIGURATION TERMS



AMD'S ZEN 3

You'd be forgiven for thinking Zen 3 is a simple evolution of Zen 2, but it's actually a complete redesign. A redesign that fuels the 19 percent IPC improvement over Zen 2, which isn't a boost that comes easily – you need only look at Intel's modest improvements over its last few generations for proof of this. And it's that 19 percent boost that is responsible for AMD finally managing to not only catch up with Intel but overtake it in gaming.

For Zen 3, AMD has moved to an eight-core chiplet design as opposed to the previous four-core model, which improves communication between the cores and the cache. Now all eight cores can access 32MB of L3 cache directly, and don't need to go through the I/O die to do so. There are other improvements as well, but this one shift is key to improved throughput for videogames.

Core i9 10900K

INTEL £519

The Comet Lake flagship is still a powerful option

5 Intel's top gaming chip lost a lot of what made it special with the release of Zen 3. When the 10900K was first unleashed it came with the reassurance that it was the 'world's fastest gaming processor', but that's not a claim it can really hold on to anymore, with plenty of games handing wins to AMD's Ryzen 5900X. It's still a cracking game chip, don't get us wrong, but it traded on being the very best, and once that went, it lost its shine.

It's still overkill for the vast majority of cases, apart from possibly at the very, very high-end, and for serious

workloads – although there AMD chips make more sense. So, you probably don't need the 10900K, but if you do build a machine around it, you know it won't be this chip that's holding you back.

The Core i9 10900K is the first time Intel has managed to squeeze ten processing cores into its mainstream line up, and given it's capable of hitting 5.3GHz (however briefly), it represents an impressive feat of engineering if nothing else.

PC GAMER VERDICT

- Fastest gaming performance
- Overclocking potential
- Top performance needs lots of power

SPECS CORES:10 / THREADS:20 / BASE CLOCK:3.7GHZ / TURBO CLOCK:5.3GHZ / OVERCLOCKING:YES / L3 CACHE:20MB / TDP:95W / PCIE 3.0 LANES:16

Core i5 10400F

INTEL £148

A great budget-friendly option for Intel builds

6 The Core i5 10400F is an exciting option. It's slightly faster than the previous-gen Core i5 9400 but that F-suffix means it ditches the Intel integrated graphics completely. That's not a problem for gamers unless you want to use QuickSync, although Nvidia's NVENC is arguably better anyway. It's an excellent budget choice that doesn't cost much more than a Core i3 processor.

There are other compromises, like the locked multiplier – so no overclocking. But that means you can save money and grab a cheaper H470 motherboard. At least you get a cooler in the box,

something we'd like to see as an option with every CPU. Most boards will run the 10400F at 3.9GHz as well, so don't fret about the low base clock.

While the i5 10400F may not be as fast as other CPUs in multithreaded tests, in our gaming suite, it's tied with AMD's last-gen 3900X. If you're gaming on a tight budget then this is hard to beat right now – it's somewhat ironic that Intel has become the budget choice.

PC GAMER VERDICT

- Affordable mid-range performance
- Cooler included in the box
- Multiplier locked

SPECS CORES:6 / THREADS:12 / BASE CLOCK:2.9GHZ / TURBO CLOCK:4.3GHZ / OVERCLOCKING:NO / L3 CACHE:12MB / TDP:65W / PCIE 3.0 LANES:16



A prototype flow battery for the electronic blood, capable of both powering and cooling the chips it passes through.

COOL RUNNINGS

What if advances in PC cooling change the PC beyond recognition?

PCs are ten, maybe even fifteen, years behind where they should be. That sounds a lot, but actually makes a lot of sense if you remember what PCs were like in 2005 (spoiler: the same as they are now). Bell's Law, a companion to Moore's Law, states that every decade, a new and lower-priced computer class forms that leads to the establishment of a new industry.

This hasn't happened. The desktop PC wasn't out-competed by the laptop, and the laptop wasn't bullied out of its evolutionary niche by phones and tablets. We've got all three, at the same time, and the one you want always costs £1,000.

This month's Tech Report was meant to be about the future of chip cooling, and it kind of still is, but it also touches on the implications of Bell's Law, and how hot new computer architectures, supplied with new cooling systems, could be about to overturn the hierarchy of our PCs and devices.

We've been actively cooling our CPUs since the days of the 486 (introduced in 1989) and today's multi-core monsters may have fans all over, with intakes and outflows on their cases, AIO or hard-piped liquid cooling radiators cooled by three fans, three more on the graphics card, and even a few on sensitive parts of the motherboard. The number and size have increased, but we're still basically in the same place we were with Pentium II machines.

"We haven't reinvented the computer, and that is a problem," says Dr Bruno Michel of IBM's Zurich Research Laboratory, Switzerland. "We're using an overaged technology, when what we should use is the newest technology which we have available."

And that technology? "Mobile phone technology." Michel studies smart system integration, and is inspired by nature. He's trying to make computers more efficient through miniaturisation, in order to reduce the carbon footprint of our processing. His end goal is to reach the kind of efficiency and computational density displayed by the human brain.

And to that end, he's built a whole data centre out of mobile phones. "It's packed as densely as possible, uses water and microchannel cooling, and uses improved power delivery. The system is about 1,000 times denser than an air-cooled data centre from ten years ago, and about ten times more efficient than if we used this exact same technology today in an air-cooled version."

To be fair, it's not going to make our hardware team look up from their RGB underpants, but that microchannel water cooling is fascinating and possibly the future of cooling inside our PCs. It's already being used in supercomputers, such as the SuperMUC at the Bavarian Academy of Sciences near Munich. This beast, with over 19,000 Intel Xeons and 340TB of RAM, is cooled by hot water for a 40% saving in energy over an air-cooled system. And that's not a typo: the coolant



Where does the heat come from?

Chips are made up of transistors, which are made up of gates which open and close to create the 1s and 0s PCs need to function. That switching, though fast, isn't instant, and there's a moment as it switches that the transistor acts as a resistor. The more times they switch, the more time they spend in a resistive state, so the harder you make your CPU work, the more heat it generates.

running through this system is at about 60°C, allowing the processors to run at approx 85°C.

DIFFUSING HEAT

The microchannels, with a diameter of less than 1mm, are directly attached to the processors. Water can conduct 4,000 times as much heat as air, and the closed-loop nature of the system means it is drawn through a heat exchanger before being sent back around. The excess heat is then fed into the heating system of the building – the SuperMUC is said to save the campus \$1.25 million a year in heating costs.

The same is true of the phone data centre invented by Michel. His microserver boards, which can use either ARMv8 chips or IBM's own PowerPC processors (which must have moved on greatly since our PowerPC G5 Macs doubled-up as room heaters many years ago) and run Fedora Linux. Each board is only 133mm x 63mm, making them up to ten times smaller than traditional server blades. The microchannels run from left to right across the boards, but this is only an early design. "In the next generation, we would also have microchannels going from the left to the right and the fluid would then flow in and out and then in and out on the other side," says Michel, hypothesising on a system in which different boards can be plugged in and out of the system to give it flexibility.

IBM's also working on a similar, but actually far cooler idea: electronic blood. First unveiled in 2013, the 'blood' acts just as the microchannel coolant does, carrying heat away from the

computer system, but it does one other thing: it supplies power too. While the coolant in Michel's data centre is normal water with some anti-corrosion stuff mixed in, the electronic blood is an electrolyte in a kind of cell called a flow battery that can reversibly convert chemical energy to electricity. The trick is to get a chip to take its power from this bath of sparky chemicals rather than up the pin grid array that we're used to on the back of CPUs, and for this reason "we will not build that directly into a chip stack," says Michel, "but we will build that into a larger system".

Luckily, current chip manufacture seems happy to take its power from whatever source it's given, meaning there's no need to muck about with materials or nanotubes to get this kind of efficiency. "The chips are made from silicon, so these

are normal processors, we don't really require any deviation from CMOS technology, that still works nicely," says Michel.

Whether we'll see this technology in our homes any time soon is another matter, however. "There is no clear road map," says Michel. "The problem is that the industry has an innovator's dilemma, they're sticking to the current state and don't dare to go to the next generation." What's more likely, he thinks, is that as cloud and edge computing – distributed computing systems that see our computers connected to hugely powerful data centres, in the case of the latter bringing them closer to where they're needed to save on bandwidth and latency – become more common, our devices will finally leave the desktop PC behind and crystallise around that newest available technology, the phone tech. Chromebooks are already part of this, but as even phone technology is ten years old, there should be something new along to take its place. Over our video chat, Michel removes his ring, showing the sensors on the inside to the camera. He talks about sensor packages that fit in your ear canal. The age of smart wearables backed by hugely efficient data centres might just be about to begin. ■

Ian Evenden

IBM'S ALSO WORKING ON A SIMILAR, BUT ACTUALLY FAR COOLER IDEA: ELECTRONIC BLOOD

BOTTOM: SuperMUC, in Munich, includes more than 150,000 cores to provide a peak performance of up to three petaflops, the equivalent to the work of more than 110,000 personal computers.

BELOW: Biochemist, inventor, wearable-tech advocate and tap dancer Bruno Michel also has exceptional taste in knitwear.



Image credit: IBM Research - Zurich

HOW WE COOL

As long as it stops the chip from overheating, there are several ways you can cool one



Image credit: Rainmond Spiekling / CC BY-SA 4.0

1 HEAT SINK
A Pentium II 300MHz CPU package with its distinctive three-headed heat sink and small fan, from 1997.



Image credit: Cooler Master

2 FAN
This huge heat sink and fan combo, from Cooler Master, is designed to cool AMD's Threadripper line of HEDT processors.



3 HARD-PIPE
If you don't mind getting your hands dirty then you can build your own custom loop liquid cooling. Just make sure it doesn't leak...



Image credit: Corsair

4 AIO
If you love your rainbows (who doesn't?) and want some of the best cooling for your CPU, then try an AIO (all in one) liquid cooling loop.



Image credit: IBM Research - Zurich

YOUR NEXT PC

BUYER'S GUIDE

Build the best PC for your budget



KEY

Budget build

PC gaming is for everyone. Pick the parts you want to build a new, well-rounded PC for a good price.

Mid-range build

You want to run every new game at 1080p 60fps. This recommended build will see you through.

Advanced build

You're looking for the best PC on the market and superior components. But you still want to spend smart.

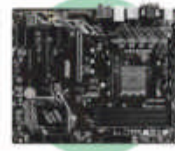
BUDGET BUILD

Enjoy 1080p gaming without breaking the bank



TOTAL
£849

MOTHERBOARD



B450-A Pro Max

MSI **£95**

A healthy dose of ports and PCIe SSD support has this B450 at the heart of our budget build.

PROCESSOR



Ryzen 3 3300X

AMD **£115**

AMD has packed its Zen 2 architecture into a speedy four-core package, and that's great for gaming.

GRAPHICS CARD



GeForce GTX 1650 Super

Gigabyte **£165**

The GTX 1650 Super is much more than a rebrand of the GTX 1650, securing it the budget crown.

COOLER



Wraith Stealth

AMD **Free with the CPU**

Gone are the days when a stock cooler was little more than a bonus paperweight. AMD's Wraith Stealth delivers.

MEMORY



Vengeance 8GB DDR4 (2x4GB)

Corsair **£40**

The new norm for gaming is 16GB, but dual-channel 8GB memory is enough to get by for most.

POWER SUPPLY



CX Series CX550

Corsair **£74**

Corsair's reputation for quality PSUs precedes them. You know you're in safe hands here.

SSD



WD Blue SN550 500GB

Western Digital **£67**

Just because it's a budget SSD, doesn't mean it has to be slow, as the WD SN550 proves with its speedy NVMe connectivity.

HDD



WD Blue 1TB 7200rpm

Western Digital **£37**

You don't necessarily need a HDD in 2020, but if you're a virtual hoarder, this'll give you loads of useful extra space.

CASE



Neos

BitFenix **£36**

You'll want to minimise how often you rebuild your PC, so make sure to give it a good home. This case'll do nicely.

DISPLAY



GW2280

BenQ **£105**

A 1080p60 VA monitor will see you through in style and, once you upgrade, will make a superb second monitor.

KEYBOARD



G213

Logitech **£40**

It may be a membrane switch board, but it's stylish, and well-built. Sometimes that's worth more than cheap clicky switches.

MOUSE



G102

Logitech **£35**

A classic shape delivered in a sleek shell, this mouse fits all hand sizes and grips. A solid option for the money.

HEADSET



HS35

Corsair **£40**














This headset delivers in-game with its punchy drivers and clear microphone – perfect for video calls and multiplayer alike.

MID-RANGE BUILD

Our recommended build for playing the latest games



TOTAL
£1,424

MOTHERBOARD		B450 Tomahawk Max MSI £120 A reliable platform for your build, the Tomahawk Max also comes in black to complement any style.
PROCESSOR		Ryzen 5 3600X AMD £198 This CPU is one of the greats, and uses the Zen 2 architecture to dominate in gaming and productivity.
GRAPHICS CARD		GeForce RTX 3060 Ti Founders Ed. Nvidia £369 The RTX 3060 Ti is a little overkill but we're willing to make sacrifices elsewhere to make it work.
COOLER		Wraith Spire AMD Free with the CPU We love a freebie, especially one as capable as the cooler included with the 3600X. This'll keep your machine running smoothly.
MEMORY		Ballistix 16GB DDR4 (2x8GB) Crucial £75 With plenty of capacity at 16GB, this unembellished memory has everything you need for gaming and more.
POWER SUPPLY		CX650M Corsair £93 The heart of your gaming PC is your PSU, and this 650W Corsair promises to keep your rig ticking nicely.
SSD		S70 1TB Addlink £70 Building on a budget doesn't mean sacrificing speed – the Addlink S70 proves you can indeed have both.
HDD		WD Blue 1TB 7200rpm Western Digital £37 Just like in the budget build, this HDD isn't strictly necessary, but for a pretty low price it's nice to have plenty of extra space.
CASE		Eclipse P400S TG Phanteks £70 An ATX case is all you need for this build. We like this one because it's simple, functional, and really nice to look at.
DISPLAY		AOC G2590FX AOC £173 Everything a PC gamer could want: Full HD, 144Hz refresh rate, 1ms response time, AMD FreeSync and Nvidia G-Sync compatible.
KEYBOARD		Alloy FPS HyperX £80 As the name suggests, this keyboard is built like an absolute tank, with a steel frame and Cherry MX switches.
MOUSE		Model O- Glorious £59 Lightweight and responsive, the Model O- has made a name for itself among streamers and pros thanks to its clever design.
HEADSET		Cloud Alpha HyperX £80 Does it get any better than the HyperX Cloud Alpha? Well, yes, but not anywhere close to this sort of price point.



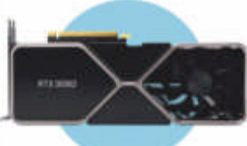


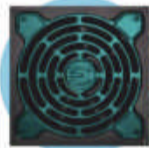







ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds



TOTAL

£3,666

MOTHERBOARD		MPG Z490 Gaming Carbon WiFi MSI £260 A heady mix of enthusiast motherboard functionality and build quality that stops short of god-tier motherboard pricing.
PROCESSOR		Core i9 10900K Intel £529 If you want the fastest gaming CPU, look no further than Intel's flagship Core i9.
GRAPHICS CARD		GeForce RTX 3080 Founders Edition Nvidia £649 The RTX 3080 is the flagship graphics card of an entire new GPU generation.
COOLER		Kraken X63 NZXT £123 One of the most stunning AIO coolers rebuilt with an updated pump and, of course, RGB lighting for more pizzazz.
MEMORY		Vengeance RGB Pro 32GB DDR4 (2x16GB) @ 3,200 Corsair £176 If you truly want to show off, even your system memory should be aglow with RGB.
POWER SUPPLY		SuperNOVA 1000 G5 Gold EVGA £200 This calibre of gaming PC draws a lot of power. Thankfully, this PSU can handle it with high efficiency.
SSD		WD Black SN750 1TB Western Digital £169 Western Digital is back on Samsung's heels with this brilliantly fast, yet affordable, 1TB M.2 NVMe SSD.
HDD		860 QVO 2TB Samsung £195 Built on QLC flash memory, it's not the quickest storage around, but it's a speedy alternative to an HDD.
CASE		600C Corsair £135 If you're going big on parts, you should grab a case that has plenty of room for upgrades down the line. This one will do just fine.
DISPLAY		Nitro XV273K Acer £780 This one's an easy choice – 4K and 144Hz for under a grand is an offer we can't refuse, and neither should you.
KEYBOARD		G915 Lightspeed Logitech £210 Low-profile mechanical switches are just the icing on the cake that is the superb, wireless Logitech G915.
MOUSE		G502 Lightspeed Logitech £110 With a lengthy battery life and a phenomenal sensor to keep you gaming at your best, the G502 is undoubtedly one of the finest.
HEADSET		Arctis 7 Wireless SteelSeries £130 If you've settled on a wireless keyboard and mouse, the last thing you want is a pesky cable to your headset.

EXTRA+LIFE

CONTINUED ADVENTURES IN GAMING

I shot her record for no reason and had to restart.



“Here, have a lighthouse in your face. Have a tiny tank. A bridge for you”

Becoming the fidgetiest soldier in **MEDAL OF HONOR: ABOVE AND BEYOND**

I am World War II's biggest jackass. For one thing, I'm terrible about firearm safety – the main problem being that if I have a firearm, I always want to be firing it, sometimes into people's arms. Other times I hold my sidearm next to a person's head while they're talking and empty the magazine into the wall behind them, because I find it funny. Or I shoot at my own feet. Or I pull the pin from a grenade and toss it straight up. Anything to pass the time while *Medal of Honor: Above and Beyond's* NPCs talk and talk.

For the most part, *Above and Beyond* enables my bad behaviour. It's

TYLER WILDE



THIS MONTH
Dishonourably discharged for playing with grenades.

ALSO PLAYED
Cyberpunk 2077,
Half-Life: Alyx

possible to pick up and throw just about any small object in this VR shooter. During mission briefings, I throw the little strategy map props at people. Here, have a lighthouse in your face. Have a tiny tank. A bridge for you. They don't react. At one point, I tried throwing a cleaver at a couple of Nazis and it tumbled in the air a few feet and then clattered to the floor. I said “Ha ha!” as if it had been a clever distraction and

snatched the MP40 gun from behind my right shoulder.

Sometimes, though, *Above and Beyond* puts a stop to all the fooling around. It glues my body in place, so that all I can do is stand and listen to NPCs chitchat about their clever plans, or monologue about sacrifice. If I manage to come unstuck and walk around a bit – in my physical room and in the VR space – I temporarily leave my videogame body, and can turn around to see a headless torso. Spooky.

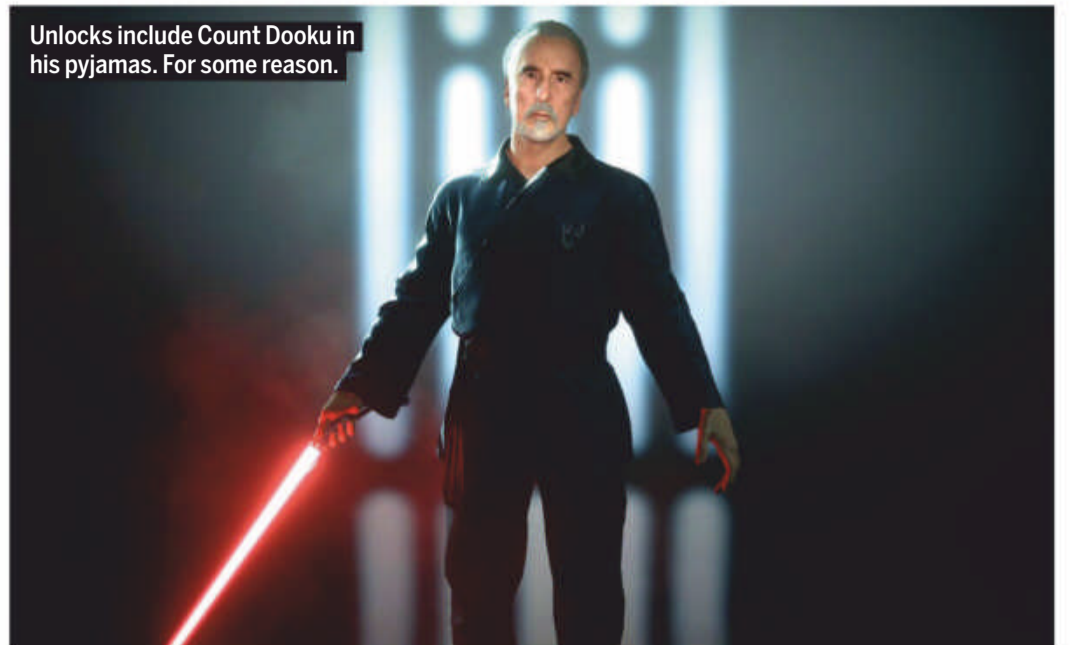
IT'S POSSIBLE TO PICK UP AND THROW JUST ABOUT ANY OBJECT IN THIS VR SHOOTER



Moments after I hucked a lighthouse at that guy's head.



I got bored in the elevator so I ruined this guy's hearing.



Unlocks include Count Dooku in his pyjamas. For some reason.

“I only knew it by its dreadful reputation”

A good feeling about **STAR WARS: BATTLEFRONT II**

▶ ROBIN VALENTINE



THIS MONTH
Found out there's an evil version of BB8.

ALSO PLAYED
Star Wars: Squadrons, *Star Wars: The Old Republic*

I thought I was done with Star Wars. I think the last time I really cared about the franchise was when I was still young enough to find Jar Jar Binks funny. But the unbelievably slick *The Mandalorian* TV show has hooked me back in, and now I'm so far down the rabbit hole I've been catching up on the last five years of games.

Star Wars: Squadrons is definitely the best of EA's efforts so far – a brilliantly atmospheric dogfighting sim – but the game that's surprised me most is *Star Wars: Battlefront II*. I only really knew it before by its dreadful reputation, its launch such a microtransaction-addled mess that it changed the industry's approach to lootboxes and even kicked off new government regulation.

It was a shameful showing on EA's part – a game rendered radioactive by sheer greed. But to the publisher's credit, they didn't let the story end there. Jumping into *Battlefront II*, I discover it's been transformed by years of content updates. Not only are

its microtransaction woes a thing of the past, it even looks noticeably better than it did on launch.

BACK TO FRONT

And I was blown away by the sheer amount of *stuff*. Even as a fair-weather fan of the series, it's pretty incredible to see a game incorporate basically everything Star Wars into one huge package. Across all three eras – the originals, the prequels, and the new trilogy – you can take control of pretty much anything you've ever seen get involved in a fight on-screen.

The odd thing is, the *Celebration Edition* which now seems to be the only way to buy the game – and was recently free on the Epic store – unlocks almost everything right off the bat. The result is it has the complete opposite problem than it did at launch. With nothing to unlock, the game's currencies have no function, and despite there still being an interface for opening lootboxes, there's no way to earn them. Almost all the challenges and daily quests are pointless. It feels like when an MMO is closing down, and on the last day they just give everyone everything for one last bit of messing about.

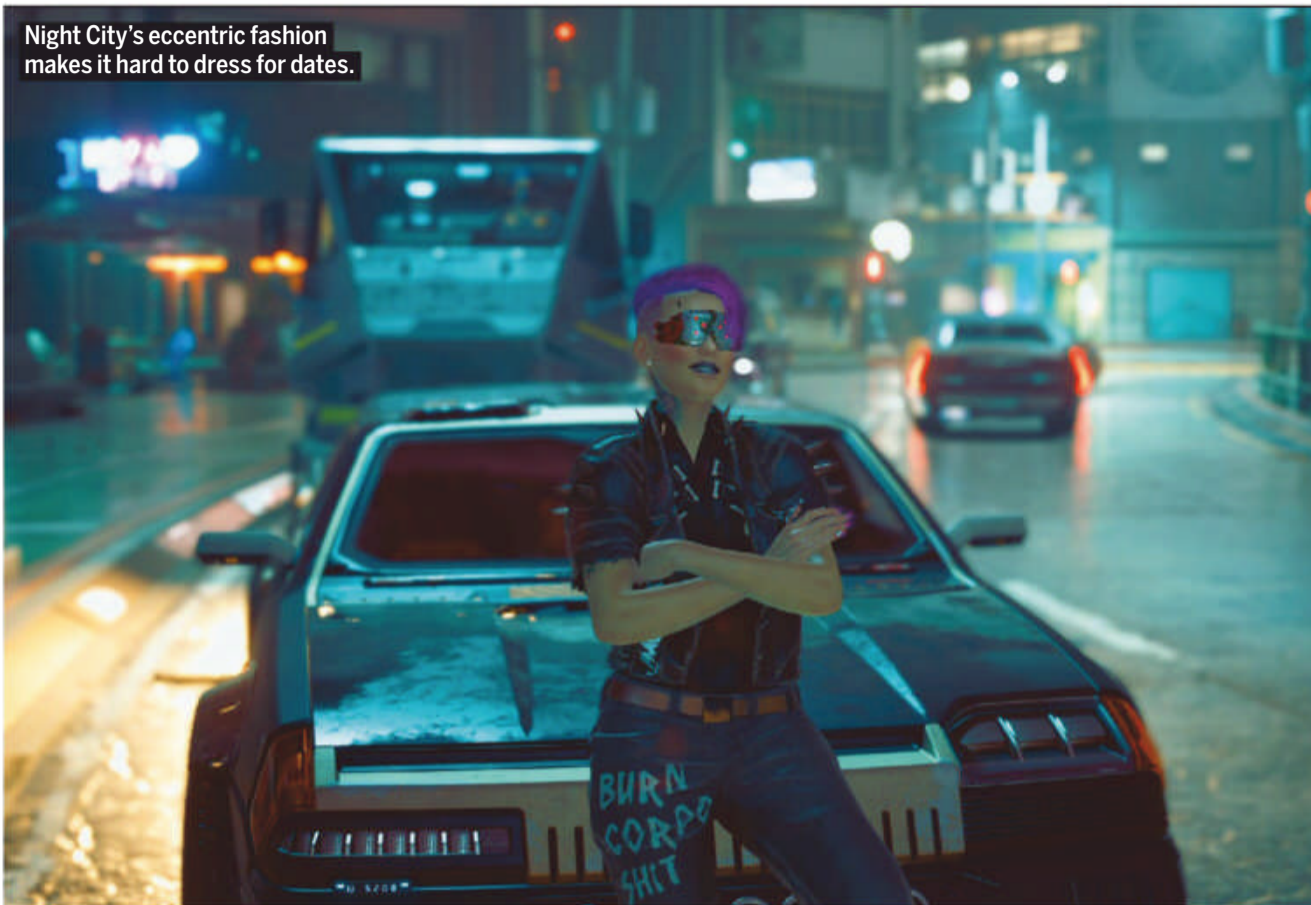
I guess that's what this is, really – a last hurrah for a game that, despite great efforts, will probably still primarily be remembered for its lootboxes. I'm glad, at least, that I took the time, after the dusts of controversy had settled, to experience the game at its best. ■

During stealth missions, I'm not even allowed to waste my ammo on the friends and allies around me. Firing any weapon gives my position away to the enemy, so I have to restart from the last checkpoint if I mess around. Even knowing this, I would sometimes shoot NPCs who were taking too long to get to the point. I felt I had to make a point to a computer program and restarting a level was an acceptable consequence.

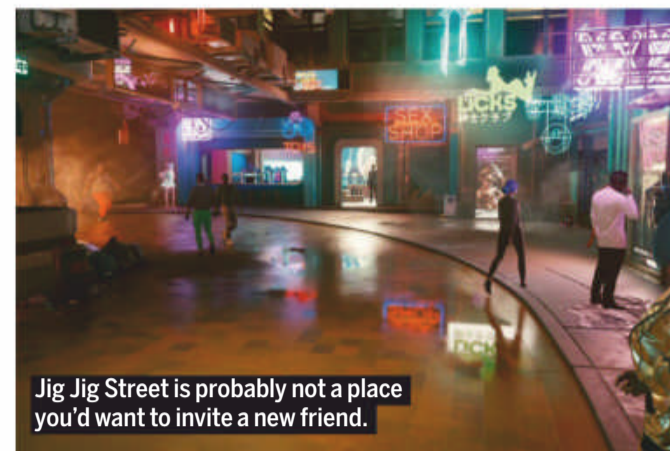
BABY STEPS

What is it about VR that makes me so infantile and impatient? Best as I can figure, it's that I'm held captive by the headset, and can't glance out my window when a scene isn't holding my attention. I just have to listen, which feels like being lectured, and all the times I've been lectured in real life I've fidgeted, too – it's annoying.

Half-Life: Alyx, in contrast, gives you a voice – that is, it gives Alyx a voice which comes from you. In scenes where there's dialogue, you're a full participant, an actor playing a part. The *Alyx* approach works much better than the *Above and Beyond* approach, which makes me feel like I'm in an old-timey diving suit and instructions are being shouted at me through a thick glass helmet, but they just won't lower me into the damn water and let me get on with it. It's frustrating, though I admit it is kind of fun to fire a machine-gun next to someone's ear while they try to explain how machine-guns work. ■



Night City's eccentric fashion makes it hard to dress for dates.



Jig Jig Street is probably not a place you'd want to invite a new friend.



“There’s heartbreak and awkwardness, and then a meaningful friendship”

Making friends with **CYBERPUNK 2077**'s charismatic crooks

After nearly a year of being stuck in the flat, starved of human contact, I've really flung myself into the role of Night City's most popular and sociable street samurai. *Cyberpunk 2077* has not grabbed me like *The Witcher 3*, but after taking a long weekend to dig into it, I've found myself enamoured with its cast of crooks. Now I'm eager to finish slapping words onto this page so that I can get back to the dystopian megalopolis. I've got dates lined up, jobs on the go and so many more bars to get drunk in.

While *Cyberpunk 2077* often feels cynical and vapidly edgy, most of its recurring characters are sincere, nuanced people, juxtaposed to the loud, obnoxious world they live in. Even Jackie, who is exactly as loud and obnoxious as Night City, and who's been criticised for a reliance on ethnic stereotypes, has his charms. He speaks in clichés, yells in clichés, and even his dreams are clichés, but by the end of the first chapter I was invested in my dumb BFF's life.

When the writing stumbles, the performances keep the characters going, and there are few where I've

▶ **FRASER BROWN**



THIS MONTH
Breaking laws and breaking hearts in Night City.

ALSO PLAYED
Assassin's Creed Valhalla,
WoW: Shadowlands

not hoped they'll pop up again. Thankfully the best characters do reappear, cropping up throughout the game in side missions and with their own personal stories. An early mission introduced me to Panam, for instance, a nomad-turned-merc who was just meant to help me with one job – instead she became central to a character-defining arc.

The relationships V forms, both platonic and romantic, feel a lot less perfunctory and transactional than they do in most RPGs. With Panam, there's been a romantic subplot, even though there's no possibility of romance. My V is a gay woman, and Panam is a straight woman, but

GO ON DATES AND DO CRIMES – THAT'S CYBERPUNK 2077'S MOTTO

Cyberpunk still acknowledges a connection and spark of sexual tension. Instead of a quick line of dialogue that amounts to “I'm not one of the NPCs you can sleep with”, there's heartbreak and awkwardness, and then a meaningful friendship.

WAKE UP, SAMURAI

Night City doesn't feel as alive as the open worlds of Rockstar or Ubisoft, but its important characters do turn it into a place I've dug exploring. Through them, it becomes cohesive and grounded, rather than just an incredibly striking backdrop. Hanging out in the Badlands with Panam or speeding down highways in illegal street races with Claire, Night City starts to make sense.

Go on dates and do crimes – that's *Cyberpunk 2077*'s motto. It's the sort of game you'd expect to put you in the shoes of a lone wolf, and you can absolutely play V that way, but it also constantly nudges you into these friendships and encourages you to forge connections with your fellow cyberpunks. It feels like the version of V that CD Projekt Red's writers most keenly imagined is the one that cares about people and looks out for her buds, even when she's busy breaking the law. ■

“What this really is, is a sitcom. One of my favourites of all time, I think”

THE DARKSIDE DETECTIVE does the hard work for you

Have you ever played a game that felt like it was made *just for you*? I don't mean one that you enjoyed a lot, or that zoned in on a specific interest of yours. I mean a game that seems to have been designed only after the developers conducted a disturbingly invasive investigation of your life. I ask because, yes, that's how this feels to me.

Here's the thing: I try very hard to enjoy videogames, but videogames fight me on this with surprising regularity. My main obstacle is time, of which I have very little. With a full-time job, a family and then a part-time job playing and writing about games, the moments I have that are truly my own can be in short supply. I'm drawn to series such as *Persona* and *Assassin's Creed* that demand a huge time investment, because apparently I hate myself.

The Darkside Detective respects both my time, and my life. It's split into six 'cases' (plus three bonus ones), each of which can be finished within about 30 minutes. I started playing it a few months ago, but haven't quite managed to finish it yet

LUKE KEMP



THIS MONTH
Laughed off threats from another dimension.

ALSO PLAYED
Assassin's Creed Valhalla,
Rainbow Six Siege

due to various life things (and *Assassin's Creed Valhalla*) interrupting. *And this poses no problems at all.* It's glorious.

Each case is a self-contained story that doesn't require you to remember intricate details from the rest of the game (although there are a few jokes that link cases). Incidentally, I started playing Telltale's *Game of Thrones* back in 2015, and I'm still not done with it. Each time I go back, I struggle to remember why everybody's so bloody miserable.

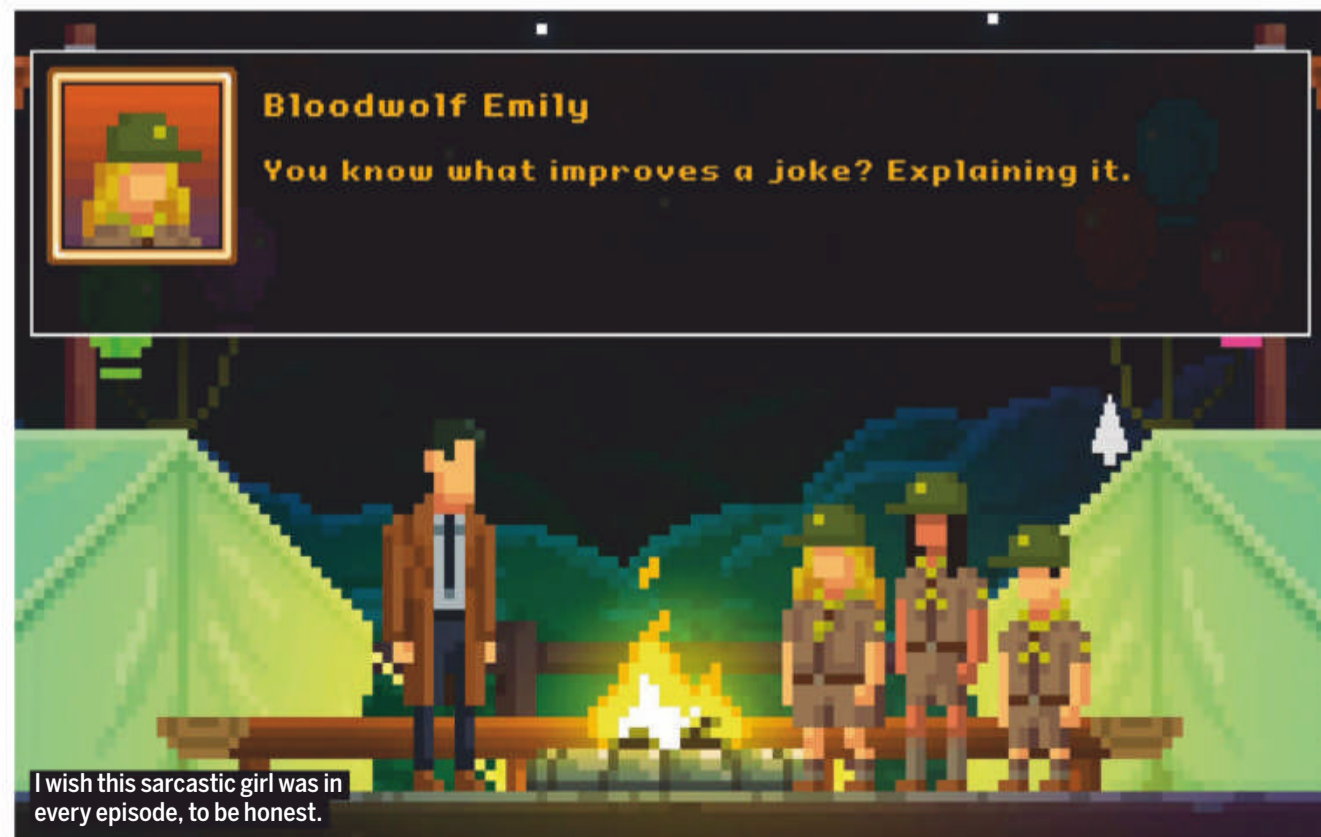
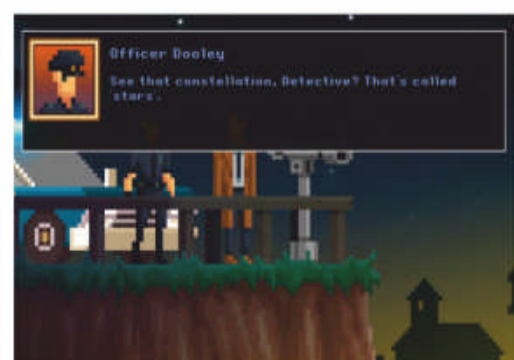
I'll soon have this one finished, though. In fact, I'm (partly) dragging it out on purpose precisely because

I'M (PARTLY) DRAGGING IT OUT ON PURPOSE PRECISELY BECAUSE IT'S FAIRLY SHORT

it's fairly short, and I don't want it to end. This is theoretically a point-and-click game – you point at things, and then you click on them – but that's just a disguise. What this *really* is, is a sitcom. One of my favourites of all time, I think. None of the puzzles pose much of a challenge; they're just there to maintain the facade. It's an interactive paranormal comedy, sort of like a cross between *Unavowed*, *The X-Files*, and the brilliant Garth Marenghi's *Darkplace*.

EPISODIC FUN

The Darkside Detective isn't split into cases; not really. These are *episodes*, and at two-thirds through, I love every one so far. There are plenty of games that try to be funny, but most fail, or at the least fail to be consistent. But this? This makes me smile, and even laugh out loud, more often than many comedy TV shows and movies that I've seen. I love it so much. When I discovered that I'd missed the opportunity to back the Kickstarter for a sequel, I was genuinely upset. The good news of course is that it was fully funded, and the next game (*A Fumble in the Dark*) is coming this year. And I cannot wait to play it, one episode at a time. ■





SEKIRO: SHADOWS DIE TWICE

Boss rush (almost) makes it a different game *By Joseph Knoop*

It's no secret that *Sekiro: Shadows Die Twice* carries some *Tenchu* DNA. Both FromSoftware and Activision have fairly deep roots in the franchise, with From publishing multiple entries since 2003 and Activision publishing *Birth of the Stealth Assassins* in 2000. Even though FromSoftware has stated that *Sekiro* quickly became a very different type of project, it's easy to see the ghosts of that PS1 stealth-action design: in the way *Sekiro* peers around a corner, slinks along the curved roofs of temples and dense fortresses, and how he ruthlessly dispatches foes without a care for his dry-cleaning bill.

Which is why *Sekiro*'s recent boss rush update feels like FromSoftware is finally admitting to what kind of game it wanted to make, rather than wedging its own brand of "prepare to die" action between vastly different stealth gameplay.

The two biggest additions to *Sekiro* are the 'Gauntlets' and 'Remnants'. There's 'Reflections of Strength', which lets players individually rechallenge any previously defeated *Sekiro* boss with a healthy assortment of items and healing gourds. 'Gauntlets of Strength' asks you to face them all (well, almost all, but more on that later) in a row, sending you back to the start if you die. Remnants are perhaps the most Soulsborne-like addition à la bloodstains, allowing you to see a 30-second recording of another player's escapades.

Boss rush is, quite simply, something that should have always been in a game like *Sekiro*. Don't get me wrong, FromSoftware has almost always had a knack for creating twisting, twisted worlds that

NEED TO KNOW

RELEASE March 2019	DEVELOPER FromSoftware
PUBLISHER Activision	LINK sekirothegame.com/home

captivate us before a brief pitstop to boss-battle town. Running back through an onslaught of enemies just to get to Blood-Starved Beast or past dragon flames before the Tower Knight was part of the fun, making each marathon back to the arena just as much of the challenge as actually slicing up a boss' ankles.

But in *Sekiro*, where those in-between moments really highlight that aforementioned *Tenchu* DNA, and the safest way to a boss was by stealthily crawling your way through the same assortment of enemies over and over (until you accidentally bump into one enemy and get taken out – we've all been there...), boss rush reduces that frustration and distills it into the pure hitbox porn that is *Sekiro*'s core boss fights.

WHO'S THE BOSS?

All you have to do to access *Sekiro*'s boss rush is rest at one of the

checkpoint idols, where you'll see a new option to reflect on previous battles. With a fast SSD, in mere moments I was whisked away from Ashina Castle to the belly of the Sunken Valley, ready to face Guardian Ape and his toxic poo.

It's a testament to FromSoftware's combat that each boss encounter flows and strikes with such a different tempo. Moving from Lady Butterfly's delicate swipes to Corrupted Monk's punishing naginata sweeps is ill-advised, as even a seasoned veteran may trip up their muscle memory. Boss rush is also just a great excuse to revisit brutal attack animations you may have missed when you were worried about having to restart a mile back. This is my way of admitting that I'd let Gyoubu Masataka Oniwa spear me and drag me around the battlefield like my dad tying a sled to the car.



THE PURE HITBOX PORN THAT IS SEKIRO'S CORE BOSS FIGHTS

THE UPPER HAND

It's a damn shame then that *Sekiro*'s boss rush excludes some of its finest fights. None of the mini-bosses throughout *Sekiro*'s journey are available, meaning no O'rin of the Water, no Blazing Bull, no Armored Warrior, and no Seven Ashina Spears Yamauchi, may he burn in hell. It's a tragedy because these interludes are where *Sekiro* really pushes you to think outside of the box. How do you defeat a knight who can take no health damage? How do you defeat Yamauchi if you haven't mastered the absolutely critical Mikiri counter? It's also where some of the best world-building occurs. The Great Serpent, linear as it may be, opens the player's eyes to how the mystical has encroached upon the borders of this tattered and forsaken land. Yes, *Sekiro*'s list of bosses is already darn near-insurmountable in a single run, but there's no reason a separate mode couldn't be created to throw you into fights with these unsung heroes.

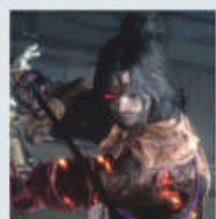
It feels like *Sekiro*'s boss rush mode might be a rare glimpse at From's kinder side, albeit in a way that gets us to the ass-kicking faster. ■

SHINOBI LOOKIN' GOOD

The update includes new unlockable outfits. Here's how to get them



ASHINA
You just have to complete the game once for this one.

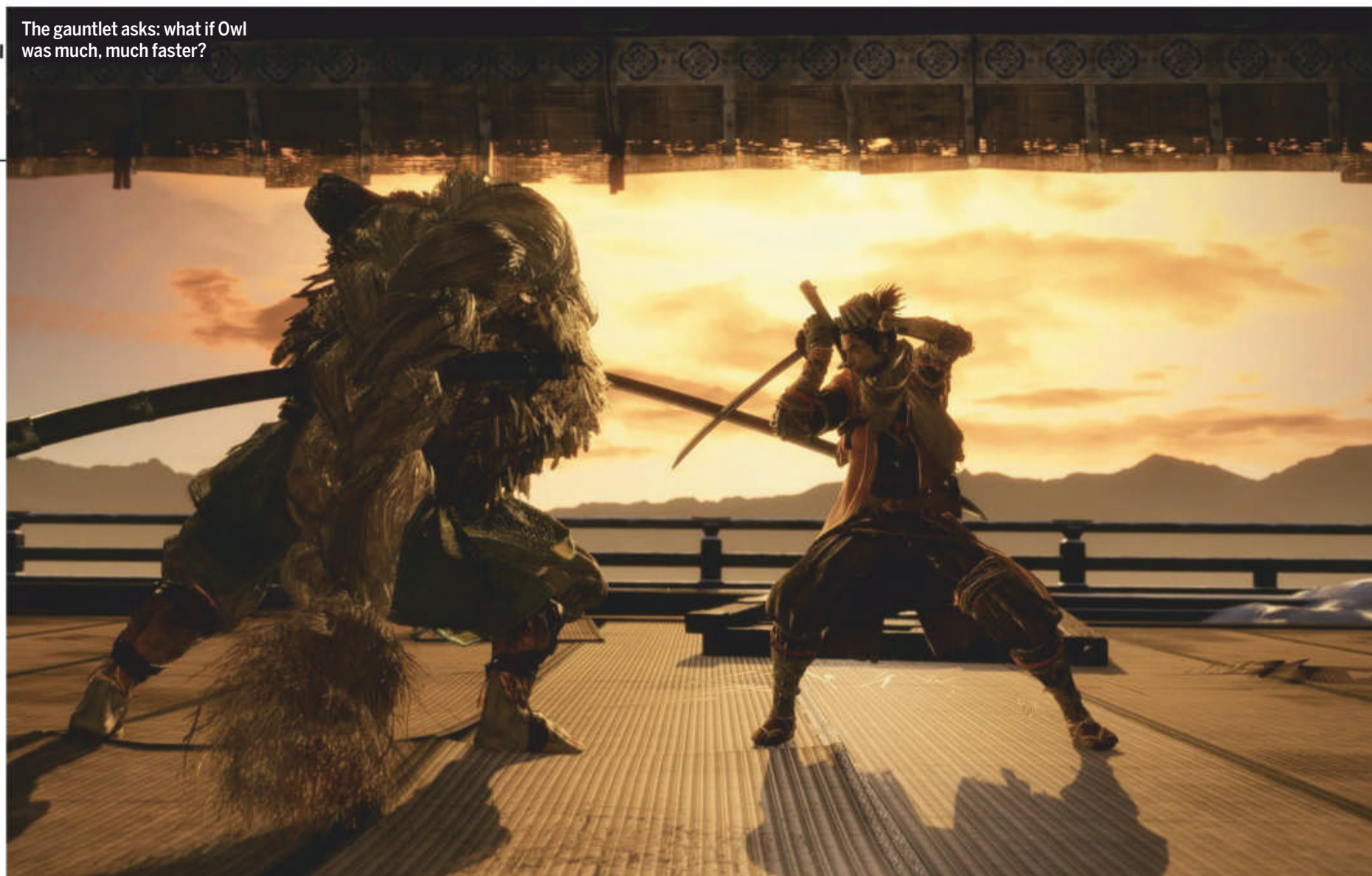


SHURA
Complete the Gauntlet of Strength: Shura.

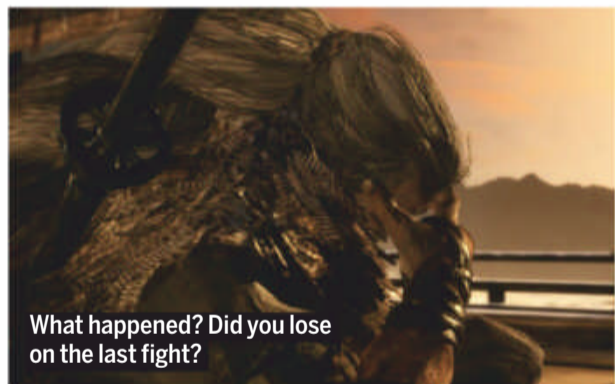


TENGU
Finish the Gauntlet of Strength: Severance.

The gauntlet asks: what if Owl was much, much faster?



Firecrackers still ruin Gyoubu.



What happened? Did you lose on the last fight?



Shit, here we go again.



Not all bosses have changed, but they're not easy back-to-back.



Tiny Warthogs are not easy to drive.



CURSED HALO

Halo: Combat Evolved gets absurd. *By Julie Muncy*

Booting up *Cursed Halo* feels, for a few moments, like any other *Halo* playthrough. The introductory cutscene rolls, Cortana makes some cheeky comments, the whole thing feels tense and grand. You've seen this before. Then the cutscene jumps to the preparations on board the Pillar of Autumn, and set against Sgt Johnson's tough-guy speech to the space marines you see a Warthog that looks... wrong. It's small. Like, way too small, like the Marines (still normal size) are about to be driving around in go-carts.

Well, you think. That's odd. But everything else seems pretty normal. You start up the campaign, settle into the Master Chief's several-hundred-kilo boots, and go visit Captain Keyes. He hands you a pistol and you rush to battle. Only once the fighting starts, you start firing and nobody dies. In fact, you start taking damage instead. It's only then that you look closely at the pistol and discover that its muzzle is, um, backwards. Instead of shooting at the Covenant, you're shooting at yourself.

Welcome to *Cursed Halo*, an experienced *Halo* player's worst nightmare. It's a mod for the 2003 PC port of *Halo: Combat Evolved* created by modder and YouTuber InfernoPlus. Here everything you remember about the game's complex sandbox, its mess of vehicles and weapons, is different. Sometimes in empowering ways, sometimes in frustrating ways. Mostly in absurd ways. *Cursed Halo* is cursed in the way of internet memery, suggesting something that's just weird in ways that don't fully make sense. The key here is the combination of oddness and inscrutability, the sense that something is going on that you do not

understand and likely do not care to. It helps, also, that it's hilarious.

Cursed Halo isn't remarkable merely because it's strange, or because it subverts player expectations. Lots of mods do that. What's special about *Cursed Halo* is how elegantly it toys with the systems of Bungie's magnum opus, the unique experience it creates while doing so, and what it reveals about how robust *Halo: Combat Evolved's* sandbox really is.

HELL FOR SPACE MARINES

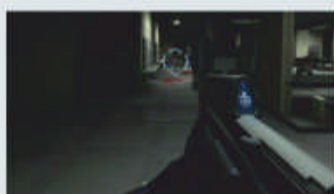
If you've encountered *Cursed Halo* outside of this article, chances are it was on YouTube or Twitch. Despite the drought of new *Halo* games over the past few years, a vibrant *Halo*

THE KEY HERE IS THE COMBINATION OF ODDNESS AND INSCRUTABILITY

scene still remains, and over the past year or so a lot of its prominent players have latched onto *Cursed Halo* as an object of fascination. It's understandable why: it's absurd, and absurd things are extremely fun to watch. The mod feels, in a way, designed for streaming, giving the player every reason to yell and scream and flinch at each new twist on familiar levels. It plays perfectly into the exaggerated affectations of game streaming.

But if you haven't seen *Cursed Halo* before and have no idea how cursed it can be, consider folding this page over and playing it right now. (Don't worry, I'll wait.) The mod itself is readily available online, though it only works with the original Windows edition of *Halo*.

WORST FIRE *Meet your new arsenal*



BATTERY GUN

Giant magazine. Might/might not explode.



FLACCID SNIPER RIFLE

Look, everyone's been there. There's no shame in it...



BITCRUSHED PLASMA RIFLE

Like a Plasma Rifle, but more pixelated. Actually super useful.



NES ZAPPER GUN

Fires NES cartridges. Admittedly not very effective.



MAGICAL GIRL GUN

In the name of the moon, I'll punish you!

» *Combat Evolved* at the moment. While that version is no longer officially for sale, copies are still easy to find online. A version of the mod is rumoured to be in the works for *The Master Chief Collection*, but it's not around at time of writing.

The backwards pistol was just a warning sign of things to come. The sniper rifle? It's, uhh, flaccid. The shotgun has been replaced by a blunderbuss, a slow-moving hard-hitting projectile weapon that's just as likely to send you flying across the map as it is to kill a cluster of Grunts. And don't get me started on the frag grenade, which is now the d20 grenade. As the name implies, it has 20 different effects that deploy at random every time you throw one.

Once I threw a grenade to try to get myself out of a rough situation while exploring the surface of the Halo ring in the game's second, stunningly pastoral mission. Instead of exploding, the grenade released a small army of Flood, which proceeded to kill all the Covenant and then also me. Another time, a desperate grenade throw did nothing but spawn a small, encouraging party horn, complete with confetti. The Covenant, apparently, are not weak to confetti. Who knew?

These design changes, which almost exclusively affect weapons and vehicles, are enough to turn the familiar experience of *Halo* into mayhem. Every situation where I was once on autopilot now requires much more creative thinking. Surviving *Cursed Halo* is a desperate balancing act that not only includes managing enemy AI but also the significant drawbacks of each weapon, many of which are now liable to hurt you just as much as the Covenant. Not all the weapons are necessarily bad, though they are all extremely silly. There's a new variation of the plasma pistol called the magical girl gun, which shoots hearts. The hearts are homing projectiles and can do pretty effective

damage when stacked, making new variants of Grunts and Jackals with the guns high-priority targets, both for safety and for the sake of getting ahold of that sweet Sailor Moon magic. Likewise, the *Minecraft* swords wielded by a new Elite variant? Shockingly effective.

GET SMART

What's striking is how well the existing systems in *Combat Evolved* adapt to these changes. The AI in *Halo* is exceptionally complex, particularly for a 20-year-old game built for the Xbox, and the enemies you face mostly just... roll with the changes. The enemies here, from the ferocious warrior Elites to the wimpiest Grunt, don't behave like they've been retrofitted with



EVERY SITUATION WHERE I WAS ONCE ON AUTOPILOT NOW REQUIRES MORE CREATIVE THINKING

weapons that they weren't programmed for. Instead their new damage and aiming models just become the new norm, and the Covenant remain as dangerous as ever. Though since they're saddled with the same weapons as you are, they do often kill each other as readily as they do you. Fair's fair.

Even the cutscenes, which apparently are rendered fully in-engine using whatever assets are available to them (like, say, magical girl guns), adapt smoothly. Well, mostly. The new weapons and vehicles appear in the cutscenes, which occasionally breaks the scripting. In the intro to 343 Guilty Spark, when you see Captain Keyes fight off the Flood, he, uh, has an accident with his backward pistol. It's fine! He's fine! Everything's fine here.

Cursed Halo takes the original game's refined sandbox and twists it into a madcap paean to absurdity. It's a game now constantly at odds with itself, the serious-minded space marine shooting his way out of a reality that is falling apart around him. Projectiles screaming in all directions, mainstay weapons turning into flailing dick jokes and pixelated memes. Not all the gags work – a bit too many are sex and fart jokes – but most of them do. Even the flavour text and mission objectives get in on the gag. During the nighttime raid of Truth and Reconciliation, you get a helpful piece of advice regarding night vision: "Press Q to turn the world green." Well, that's not *wrong*.

It's easy to imagine a mod like this being unplayable or inordinately frustrating. And, at times, *Cursed Halo* is infuriating. But it maintains just enough of the game's original balance, and relies heavily enough on the established interplay of systems, that it remains a conquerable challenge. Weapons do work, and dominant strategies do emerge. They just make no sense, anchored in a set of rules that bear no resemblance to any realistic combat ever waged in games or real life.

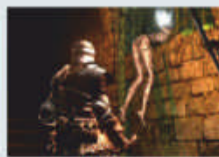
The new rules work, and they work because the base systems here are so solid. The interplay that Bungie created remains genius: guns, grenades, and melee attacks all impact enemies in different ways, allowing for combat to feel wildly different at different ranges, while the AI is advanced enough for every enemy unit to feel distinct. *Halo* is full of complexities to nudge at, like the way Elites tend to start climbing on rocks and boxes when they're pressured, which a smarter player can use to single them out. A Grunt without a commander will still run away. You can still find weaknesses to exploit and behaviours to punish.

Games have a hard time rendering absurdity in mechanics. They focus on rules, after all. Subverting those rules might make a game suitably ridiculous, but it rarely keeps that game fun to play. By relying on the existing systems within *Combat Evolved*, *Cursed Halo* strikes that balance better than most professionally made comedy games manage. It's fun while also being stupid, absurd without being fully broken. It's a blueprint for how to create this sort of game, building on top of *Halo*'s foundation with surprise and humour. This is the excellence of *Cursed Halo*, and points to the power of Bungie's classic game itself: even absurd, it's still *Halo*. ■

GO CURSE YOURSELF *Some more 'cursed' mods to try*



ANIMAL FACE PAINT FOR XCOM 2
One look at you and your silly cat-face and Advent might just pack up and leave the planet.



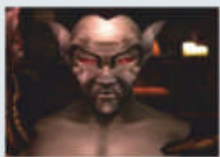
DARK SOULS: DAUGHTERS OF ASH
Remember when you first played *Dark Souls*, and it ruined you life? This is that but worse.



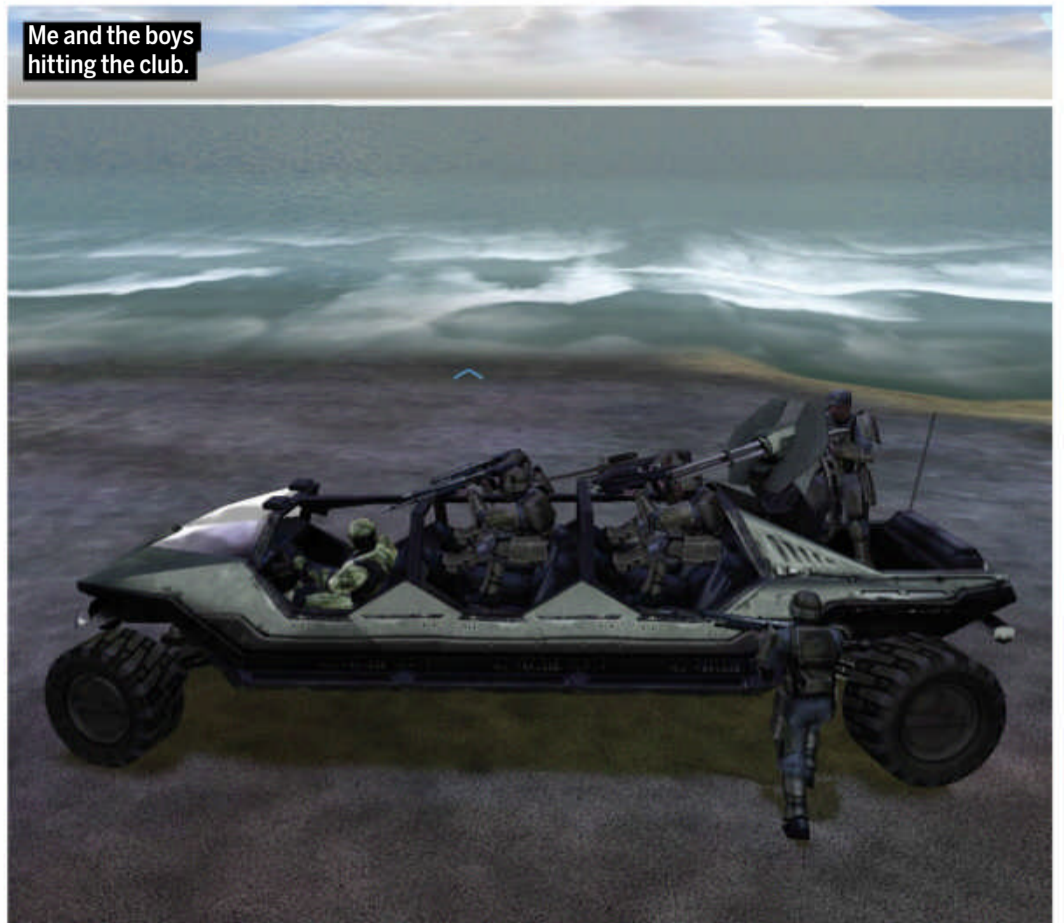
SKYRIM'S CRIMES AGAINST NATURE
Twelve new Skyrim races that are... we'll be diplomatic and say 'distinct'.



AEUHHH???? FOR DOOM
Home Improvement texture/sound replacement. Tim, did you let the demons into the garage again?



IMMERSIVE MADNESS FOR MORROWIND
There's a quest where you help an orc find his lost butt. That's all the incentive you need.



Me and the boys hitting the club.



Yeah, fair.



This Grunt isn't mad. He just loves you.



Tame Night City in CYBERPUNK 2077

Make this far-future metropolis a home with these tips. *By Harry Shepherd*

NEED TO KNOW

DIFFICULTY
Easy

TIME
20 hours

VITAL LINKS
Best lifepath:
bit.ly/3m8CK10

Braindance tips:
bit.ly/2JSELB6

Hacking guide:
bit.ly/3a4IFSa



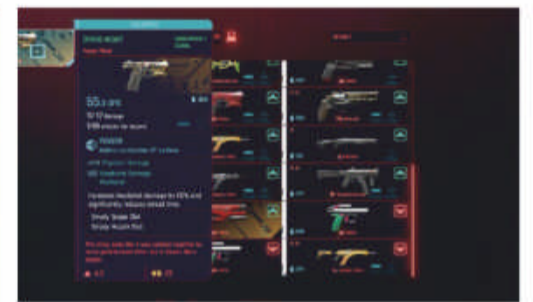
ALL-SEEING EYE

1 The first cybernetic implant you get is in the main story, and useful for stealth. With Kiroshi Optics, zoom to scope out your environment with RMB, then use your scroll wheel to get an even better look at enemies, cameras, and turrets.



CYBER JUNK

2 V has a carry limit, so you'll need to store or sell your gear to stop yourself from getting over-encumbered. If you're a hoarder who can't part with anything, look out for drop points. They're marked as cardboard boxes on your map.



NIGHT NIGHT

3 Iconic weapons are unique damage-dealers with boosted stats and perks – pick one up free early on. The Dying Night pistol is great for stealth, and you can get it for zero eddies at the 2nd Amendment gun store near V's apartment building.



SOBER PUNK

4 Food and drinks have pretty powerful effects. Alcohol gives you stacking negative debuffs, so it's best to stick to snacks and soft drinks – they'll boost your maximum health and stamina.



READY EDDIES

5 If you want the coolest gear and vehicles, then you'll have to pay for it. Make extra cash by completing fixer contracts (Gigs) and side jobs, scavenging for wads on tables or the streets, and using quickhacks to steal.

DOC WORKERS

6 Upgrading your body mods is expensive, but it's worth strengthening your extra abilities at Ripperdoc clinics. There's one in Watson that if you play your cards right can net you a 20 percent discount.



TAKE IT SLOW

7 Don't rush through the main story, which can be polished off in 20 hours. Instead, savour the extreme sights and sounds of Night City and take the time to make friends. Doing so may help you when it comes to the ending.

TRAIL BLAZERS *The lifepaths that kickstart your dystopian adventure*



NOMAD

Before you enter Night City you'll need to deliver some questionable cargo, but your background will come in handy now and again.

STREET KID

Street Kid V knows Night City just as well as its gangs. For us, though, this lifepath is the weakest.

CORPO

Your knowledge of the business world will help you deal with the city's elites for the rest of the game.



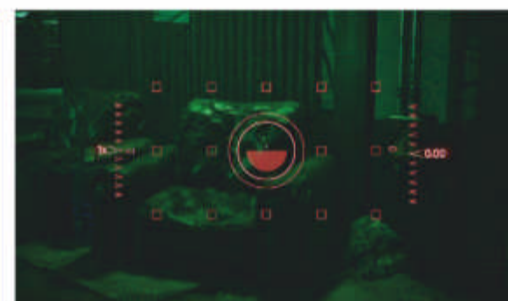
CLASS ACT

8 There are three lifepaths to choose from, but don't agonise over choosing one. You'll get a different introductory mission and some different dialogue options, but not much else. Go with what sounds best for your V, and get cracking.



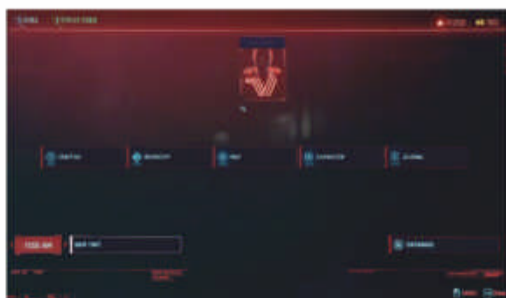
SAVE YOURSELF

9 *Cyberpunk 2077* was better on PC than consoles at launch, but it still suffered from bugs at the time of writing. That's why it's best to save often, so you can zip back to your most recent state in the event of a quest bugging out.



WILD HUNT

10 Use your scanner (Tab) as much as possible to identify valuable loot. You'll need to sell and store (see point two) much of what you take, but useful goodies can still be hidden away in places you wouldn't necessarily expect.



TIME TURNER

11 Sometimes you'll be asked to wait for a call from a character during a mission. If you're keen to continue that mission, you can skip time (I) for up to an hour. Do that, and you should get a buzz to remind you shortly after.



LOOKING GOOD

12 The character creator is extensive, but you'll want to spend the time making sure your V is perfect. That's because, after you've finalised your avatar and started your lifepath, there's no way to change it.



DIARY

LEADING A
PEASANT
REVOLT IN

BATTLE BROTHERS

PART II

We return to the Darklands
for a grim conclusion.

By Jon Bolding

THE RULES

- 1 Use the Peasant Militia origin.
- 2 Never work with nobles, and never buy from them.
- 3 No looking stuff up on the wiki – we're uneducated peasants.

The locals in Waidtal call the monstrous spiders that live in their woods 'webknechts'. The things are horrors the size of a large dog. After a day spent wandering the woods we find a boy hiding beneath a handcart surrounded by the strewn remains of a travelling group. It's a quick tracking job from there, across the trade road and into a stretch of woods where the branches are thick with webbing. We march in. It's an ambush.

A wave of spiders comes skittering in from the trees. They come from every direction, so we have to fragment our usual battle line to hold gaps in the trees. Leonhard the Poacher puts down a spider with each javelin tossed.

The sheer number of creatures is intimidating, but they practically throw themselves on our spears. We can hear more of them in the woods. Our shield wall spreads out into a wide ring to try and cover all the gaps. The lads get spooked and send out two rookies to scout.

It doesn't work. A scout comes running back towards us – Bertwin, someone says his name was – screaming about eggs bursting open, but a spray of webbing from deeper woods trips him up. He dies there, just out of reach, and more spiders come swarming in over his corpse.

SLOW AND STEADY

The only bright spot in this is Albrecht the Sloth, a supposedly-lazy beggar, who turns out to be pretty good at bashing spiders with a club. We've seen it before: some people find purpose on the battlefield. Only in our horrible line of work, we self-appointed mercenaries of and for the people, could we have learned that.

We spend the late summer ranging the forest towns, going up to the tundra city of Bolasted to sell our loot. We gain some renown putting down bandits, beasts and raiders for magistrates and councilmen. We get some real gear and experience. Gebhard, Walram, Alfred and Thilmann have mail shirts or brigandine plates over leather, real helmets and proper arming swords. Gero the

farmhand gets a real metal flail. And Leif becomes very, very deadly with his axe.

After weeks in the woods we head towards home. In Bolasted we hire two men definitely fleeing from the law: a strong young gravedigger called Oskar who says the last grave he dug was his evil father's, and a man named Balon the Weasel who's running from debts owed to some nobles. We think they're exactly our kind of scum.

Back home in Bokenberg, elder Bjarne says they've had trouble with graverobbers north in the copper mining town Hohenau. Some kids reported disturbed graves and freshly overturned earth out in the mountain hollow where the town's dead are buried. It's a bad deal: the Hohenau council are only offering 450 crowns for a fix. "Graverobbers are usually idiots," says gravedigger Oskar.

Of the twelve founding members, eight are still alive.

All proud northmen seeking justice for the evils that the nobility have done to us, seeking freedom through the life of the mercenary. All are from this region, six from this very town. Underpaid or not, we still take the job.

THE EYELESS CORPSE OF SOME GREY-HEADED WARRIOR STUMBLES FORWARD

BONED

The graveyard is deserted when we arrive, but the white of the snow is marked in places by sprays of fresh black earth. Are they taking the dead from their graves? The only sound is our breathing, the crunch of snow underfoot, and the only movement our steaming breath. Then scraping and cracking as a nearby grave erupts in a spray of earth clods. The graverobbers aren't taking the dead: they are the dead.

The eyeless corpse of some grey-headed warrior stumbles forward, jaw missing, revealing only a flopping purple tongue. More rise from other graves – five, then ten of them. Wiedergangers. Those who walk again.

We've heard tales of the dead. They never tire, never suffer fatigue, never quit. They have to be hacked limb from limb before they'll lie still. But they're slow and stupid. Thilmann snaps out of it first, bellowing at the men to form up and lock shields. The dead slam into the hard middle of our wall, veterans like Gebhard and Walram, who stand firm.

I know we can't be passive here. We'll tire out, but they won't, and a tired mercenary is a dead one. I give the signal and our battle line collapses in on the foe. Leonhard the poacher tosses a javelin and it takes one's whole face off, but it gets back up. It doesn't get back up when noseless Leif's heavy axe splits its skull in two. Farmhand Gero wades in, flail whistling circles, and plants its spiked ball in two rotting skulls, one after the other.

Finally nothing dead is moving. We call the roll and miraculously, no-one is hurt. I fear what festering wounds those rusty blades would have left. We march back to collect our pittance. The councilman of Hohenau is pleased, but it's clear he knew there weren't any graverobbers.

Stopping in Bolasted we take a job guarding a south-bound caravan. Far south: new lands, a warm sun and



Webknecht corpses litter the forest floor.



» new nobles. Nobles who can't exactly take revenge on our friends and families if we take a bit of what we deserve from them.

The road passes first familiar towns like Waidtal, then big cities we've only heard of – Schanzberg, Dustermark. Crossing the mountainous ridges of the giant's slopes and going through the thick, black forests of Tickbrake, we come to flat valleys. Steppeland punctuated snow-capped mountain ranges. It's an uneventful journey, but we're paid pretty well for it for it.

The town we've arrived in, Dornheim, is a bizarre place. There are things here we've heard of but never imagined we'd see: the long trellises of a wine vineyard. Colourful vats of a dye where linen goes from tan to brilliant red or blue. These people should be living fat, but they're not. The House of Krieger rules these lands, violent nobles and the cause of a dozen wars. Their taxes are twice what we pay in the north. And what do the good people of Dornheim get for these taxes? Nothing. First day in town a local merchant begs us to take a job ridding the tradeways of steppe bandits.

TRADING UP

We take the battles nobles will not. For this, the south is good to us. We get money, a lot of it, and hire new men who share our cause. We even journey to the edge of the deserts, to the rich city-states there.

The furs and hardwoods we brought from the north fetch absurd prices here. That's not to say our life isn't hard. There are losses: a spear to the foot and we almost lose Gebhard. Gero gets beheaded by a brigand's falchion. We lose Reinhold the Minstrel to a desert ghou, a

THE ANCIENT DEAD

They were the best, once. Maybe still are



AUXILIARY

Hard to kill, these light infantry aren't slowed by terrain or bowshot.

LEGIONARY

A thick shield wall, sometimes with pikes in the second rank.

HONOR GUARD

A heavy two-handed cleaver may tire a man, but not these ancient ones.

corpse-eater that emerges from a dune unseen and devours him whole. The camp is quieter after that. It's losing Leonhard that's hardest though.

Our poacher was a fixture of the company. Once he's gone, only six of the twelve, the ones who set out from Bokenberg in search of freedom, remain. The night he died I found Thilmann crying alone by the latrine pit. I tell the lads we're headed north. But first, revenge.

We hated the Von Kriegers before we got here not just from reputation, but by experience: before we were mercenaries we were a peasant levy, and the Kriegers were the sons of whores who we were levied to defend against. They're the whole reason we became those who fight for the common people.

We spot a Krieger supply caravan winding its way across the steppe and fall on it in a quick, vicious ambush. Their men are brave and disciplined, wearing shiny new mail, and march in lockstep to meet us. The poor, stupid bastards fight entirely too fair. We throw nets, purchased from the desert cities, to ensnare them and then slip daggers into the gaps in their armour. We take everything we can carry and burn the rest.

We hit another caravan the next day. Between our nets and our numbers a handful of well-armed guards stand no chance. Flush with gold, silks and spices we return north before the House of Krieger can muster a proper response. We eat and drink well, we're the richest people we know by far, now. Proper mercenaries with feathered hats and goblets for our wine.

Back in Waidtal we decide to take one last job before we head home. Councilman Ulrich, one of our first-ever clients, points us to a forest monk, a druid. Some important relic has been stolen from their order and lies in the Grim Tombs. We know where that is, we say, because we mapped its location once for a cartographer.

The tombs are as we remember them. Stretches of ancient walls and graves and crumbling colonnaded mausoleums. A lifetime ago Leonhard said they were ruins from the old empire. When we approach, the dead come clanking out of the forest mist. Not shambling, bloated corpses like the Weidergangers, but skeletons in rusted armour and greened bronze helmets. The clanking battle line of the ancient wars.

They march in lockstep, keep their shields up, stay in formation. We're outnumbered, and the untiring dead might outlast us in a clash of shields. I have the men fall

Small brigand bands can yield good equipment for an easy fight.





Disturbed graves and the
unquiet dead amid the snow.

back to use a stone wall as a bastion. We'll limit how many dead can come at us at once. It doesn't work. Gebhard has a mangled foot from that nomad's spear. Too slow to fall back, he's caught. Half the men rush up so he's not overwhelmed. We've outfought the dead once before.

The first wave, lightly armoured auxiliary troops, we do win. The second wave is worse, a tight shield wall of ancient legionaries, thickly armoured, with spear and short sword and tall oblong shields. The soldiers that carved an empire across the entire world.

END OF THE LINE

The failed withdrawal leaves our men in two groups. The less experienced men get fatigued, make mistakes and die. I was a fool to think our shields could hold against the dead. The dead do not tire. They do not make mistakes.

Perhaps if we'd brought more axes we could have hacked through those shields. But we didn't. We don't. More men tire and fall, then veterans. Leif is cut down,

then Oskar, Albrecht. Gebhard is speared in the throat. Walram's guts get spilled by a broken, rusted sword.

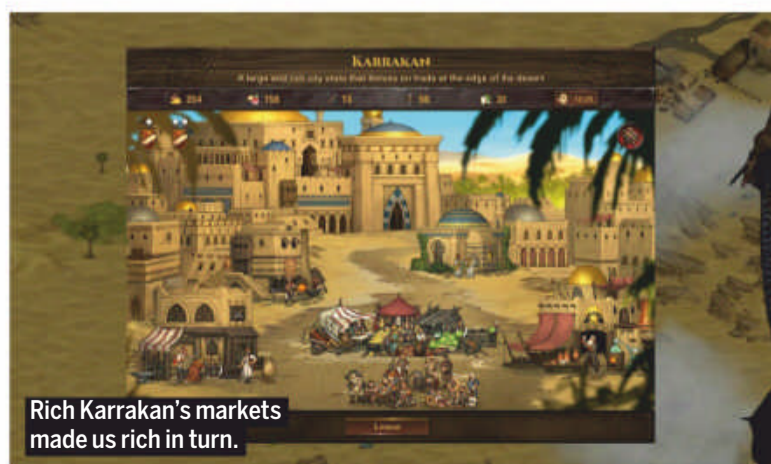
It's a slaughter. We break and run. Alfred the Fisherman, the brilliant man who thought to use nets against the noble troops, gets surrounded and left to die. We don't stop running until we're out of the trees and into the tundra. There are only five of us left. Fritz the Butcher deserts that night.

By the time we reach Bolasted it's clear to everyone that our dreams of a new world, of freedom, are over. The last three of the originals are Wolfgang, Thilman and myself. We sell the company's armoury and disappear with the pay chest. We burn the company charter over a

fire out on the plains. We think we'll go back south, past the desert, and buy a plantation of date palms by the sea. Maybe we can buy a little peace, too.

At least we never sacrificed our principles, even if we did sacrifice quite a lot of our brothers along the way. For a brief time, we were a true company of the people. ■

I WAS A FOOL TO THINK OUR SHIELDS COULD HOLD AGAINST THE DEAD

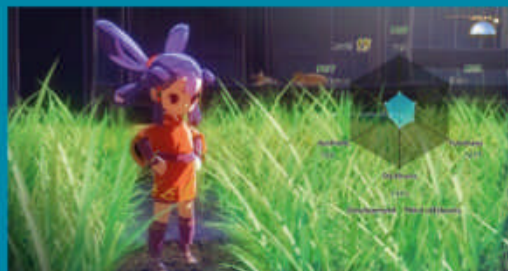


Rich Karrakan's markets
made us rich in turn.

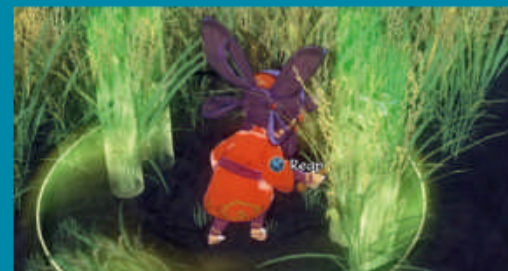


RICE FARMING IN SAKUNA: OF RICE AND RUIN

I planted 100 individual seedlings and loved every second. *By Rachel Watts*



LEFT: It's up to you how deep into the exciting world of rice metrics you want to go.



It's difficult playing other farming games after you've played *Sakuna: of Rice and Ruin*. For all the satisfaction I've found in the likes of *Stardew Valley*, *My Time at Portia*, *Spiritfarer*, and *Ooblets*, I've never been as pleased with any virtual crop I've ever grown as I have in Edelweiss' demon-slaying action game. A side-scrolling brawler crossed with a farming simulator might seem like a weird hybrid, but *Sakuna: of Rice and Ruin* makes the two work in harmony. It's safe to say that this is the most excited about rice paddies I've ever been in my life.

Sakuna isn't your normal farming game. Sure, *Stardew Valley* has rice crops, but that's nothing compared to the hardcore rice farming here. It's next level. It's not simply a case of chucking some seeds in the ground and watering them every day – oh no. Growing rice is a delicate process, and even slight adjustments to water and weather could potentially mess with your harvest. Growing those little white grains is serious business.

After being banished to a demon-infested island, Sakuna and her new human family need to grow rice as their main food resource, and it's her job to plant, nurture, and harvest the crops. A day for Sakuna goes along the lines of checking on the paddy, going out to scavenge for resources, and then spending the evening with the family, sharing stories over a hearty meal.

It's a lot to take in at first – *Sakuna* throws a bundle of graphs and numbers at you thick and fast. But it thankfully breaks it down in a way that makes rice-field maintenance fun and accessible. Through a variety of minigames, *Sakuna* takes you

NEED TO KNOW

RELEASED
November 10, 2020

EXPECT TO PAY
£35

OUR REVIEW
N/A

LINK
sakunaofriceandruin.com

DANCING ON RICE

From one farmer to another, here are some expert rice growing tips

1 Spacing is important when planting out your seedlings, try and aim for two footsteps between each shoot.

2 Don't worry about over-watering as rice shoots are a thirsty bunch. Be generous with your water.



3 Make sure you add fertiliser to your soil every day to keep it full of delicious nutrients for your crops.

4 Keep track of the weather. If it's been raining, drain the excess water, and if it's been sunny, open the floodgates.

through every step of rice paddy care, and it doesn't hold back. Your first task is to plant individual seedlings – 50 of them for your first harvest – and then throughout the days, you need to keep an eye out for weeds and pests that need removing while topping up the soil with some fresh fertiliser each day. It may sound monotonous, but for me this busywork and preparation has the same feel as organising your party before a dungeon delve, or collecting a bunch of items before a difficult boss fight. But, you know, with less murderous intent.

FARM HAND

Nurturing and patience are the way of the humble farmer, and caring about the nitty-gritty details, such as water irrigation, is part of the job. I actually love the water system in *Sakuna*, which involves flooding the whole paddy and controlling the water flow by opening and closing small gates that connect to a river. During the spring it's important to make sure the seedlings have plenty of water, but then when



summer comes by you'll need to switch up your tactics and drain the paddy in what's known as 'midsummer drying'.

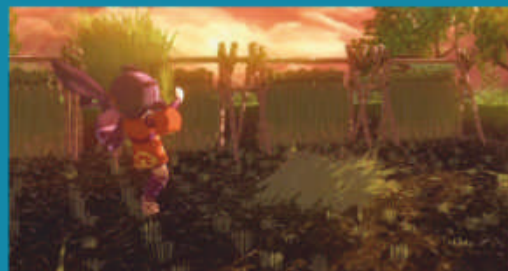
Taking care of the harvest throughout the year, switching up your treatment in different seasons and making small adjustments depending on what the rice crops need is the best part of the game. How you grow your rice can also impact what special abilities and fighting skills Sakuna gains. It's a neat way of tying the farming and fighting together so they don't feel all that isolated from each other.

It's lovely seeing your bumper crop of rice shoots swaying gracefully in the wind, but even at that stage you're far from done. After collecting the crops (again, individually) you'll need to dry the bunches of them overnight. Then begins the threshing process, which means removing the grain from their stalks. Following that, you'll need to hull the grain, an important process where you remove the tough bits of husk. The more you hull, the whiter the rice becomes, which can result in different rice variations (the more you know!).

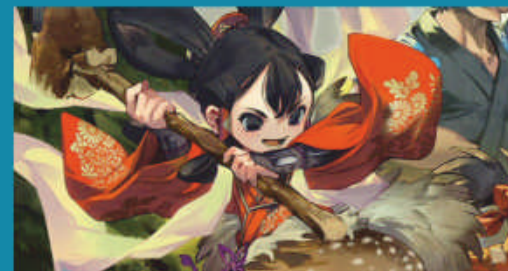
IT'S LOVELY SEEING YOUR CROP OF RICE SHOOTS SWAYING IN THE WIND

Only after this string of mini-games is complete can you store your rice to eat through the winter – and get ready to repeat the whole process over again in the spring.

It sounds like a lot of work, but each mini-game only requires one or two buttons pressed over and over again. Against a beautiful backdrop with soothing music, the time just melts away. I'm only in my third year of rice growing in *Sakuna: of Rice and Ruin*, but there are so many more techniques that I want to learn. It's a lot to take in at first, but with a few seasons under your belt, you'll be well on your way to a higher plane of rice farming bliss. ■



LEFT: Weather permitting, the rice stalks should dry in a day or so.





These guys are *not* happy about me using noclip.

QUAKE

The blueprint for 3D shooters has lots to teach in 2021. *By Wes Fenlon*

A wizard lives here, supposedly. Either he's out to lunch, or someone at id Software in 1996 came up with the name for *Quake's* E2M5, 'The Wizard's Manse', and decided it was too cool – sorry, too metal – to change, even when the wizard himself never makes an appearance. Forgivable, considering it's one of the most tightly crafted levels in a game full of them.

I've been on a classic first-person shooter tear recently, playing a mix of old-old and designed-to-feel-old shooters like *Amid Evil*, *Dusk*, *Duke Nukem 3D* and *Quake*. With so many games today designed to keep you playing for a hundred hours, it's refreshing to pick up a shooter that lets you ice skate uphill at Olympic

speeds and tear through a dozen levels in an hour or two. But with *Quake*, it wasn't really the speed that pulled me in. Even closing in on 25 years old, *Quake* still surprisingly feels like a game with a surprising amount of wisdom (though again, no wizards) to offer.

It's simple wisdom, really, but few shooters have outdone id's level design even with two decades to study them. Here's a basic lesson *Quake* imparts in The Wizard's Manse: climbing up a staircase and realising that you're now standing on a platform above the room you fought through a few minutes ago is more empowering than any shotgun. It's a perfect videogame moment, closing the loop on the thought 'how do I get up there?' with the sudden satisfaction of doing it without you even realising it.

Another *Quake* lesson, which goes hand-in-hand with that one: a small level is almost always more impressive than a big one. The Wizard's Manse is about a dozen levels into *Quake's* campaign, and was the first one to really make my lizard brain stop and pay close attention. John Romero once tweeted it's his favourite level in the game, and I can see why: E2M5 channels id's excitement with *three dimensions* into an intricate construction of criss-crossing walkways, looping back over itself twice before you reach the end.

BROWN NOTES

It's so easy to chew through these old shooters without really stopping to look around. And in *Quake*, there's usually not a whole lot to look around at. A few levels borrow *Doom's* sci-fi aesthetic, but each episode invariably descends into a vaguely Lovecraftian castle or dungeon. *Quake's* defining

NEED TO KNOW

RELEASED
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idsoftware.com



Owwiiee!

You'll trek through the central rooms of the Wizard's Manse 2-3 times, always from a new perspective.



Even fiends gotta do their calisthenics.

characteristic is the colour brown. Even the water is muddy.

Doom is favourably remembered for its amazing maze-like levels, while *Quake's* campaign is mostly remembered for what it wasn't: the more RPG-esque fantasy adventure that John Romero wanted to make, which wouldn't actually have been a shooter at all. You would have ended up some guy named Quake carrying around a massive hammer. It ended up a shooter, of course, an awful lot like *Doom* but in full 3D. But when *Quake* tries to show how big of a deal those state-of-the-art polygons were, it really shines through.

The Wizard's Manse starts with one of *Quake's* most underused gimmicks: its enemies fighting each other. I walk out onto a long bridge, then immediately retreat back to the cave I started in. I get lucky: an ogre and two Death Knights follow, and a poorly aimed fireball blast into the ogre's back makes him take a chainsaw to the Death Knight instead of me. The bridge and a couple grenade-throwing ogres outside are the manse's lookout tower, and a warm-up for a level that's going to constantly ask you to watch out above.

QUAKEFUSION *What in hell is the best way to play Quake today?*



DOS QUAKE

On Steam and GOG, minus the soundtrack. A guide on Steam can help you restore Reznor's tunes.



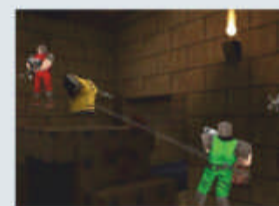
QUAKESPASM

A modern *Quake* engine that hews closely to the original, but adds hi-res and hi-refresh support.



DARKPLACES

An engine rewrite with HD textures and real-time lighting, and compatible with many mods.



NQUAKE

When you're done with the single-player stuff this is the go-to for multiplayer *QuakeWorld*.

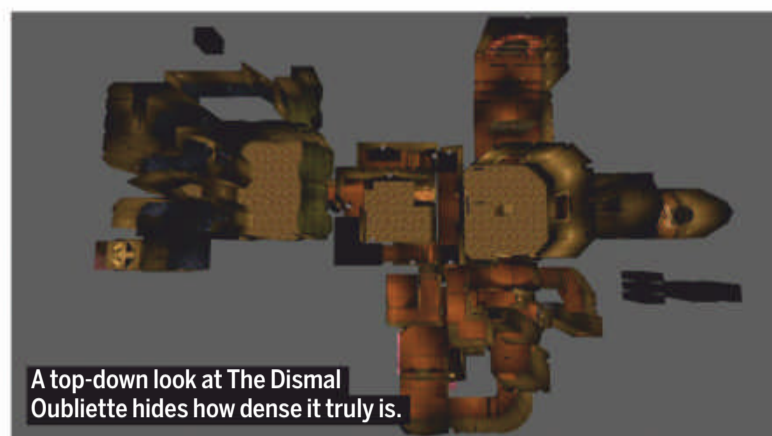
The manse's main room – I guess criss-crossing walkways over a pool of brown water once passed muster as a foyer? – forces me to skirt the left side of the room until I find a button that raises the right side's walkway. When I leap (OK, fall) into the water to avoid a grenade, I'm rewarded with a few goodies that recover the ammo and health I just lost. It's a quick swim to get back, and also includes a great bit of foreshadowing: a barred-off underwater passageway that I immediately want to find my way into.



One flight of stairs later and I'm under another set of walkways and above another pit of water, but jumping in this time yields something even better: a passageway that leads to a quad damage power-up and a way up, level with the assholes who were just raining grenades down on my head. The powered-up super shotgun turns them into chunks.

ON ACID!!!

The next room is simple, yet one of the most memorable in all of *Quake*: a series of narrow platforms over an



A top-down look at The Dismal Oubliette hides how dense it truly is.



acid pit. They pop out of the wall with a thunk when I get close, forming stairs for me to hop up. Finally I'm on the top floor, looking down two levels and wondering if the wizard actually appreciates this view. The graphics in The Wizard's Manse are indistinguishable from the rest of *Quake*, but those little mechanical steps give it character. They make me think about how the wizard gets around his house, and the satisfaction he probably took in building this whole place.

He had a small plot of land, so he had to be creative. It's basically just four rooms – ten minutes of winding and climbing would take about ten seconds laid flat. Usually vertical videogame levels guarantee a groan, at some point, when you fall off the top story and have to walk your way all the way back. But *Quake's* levels are so dense, that's never a problem. Thankfully there's always a sneaky elevator or alcove that gets you back to where you were in seconds.

Finally, at the end of the level, The Wizard's Manse drops one more *Quake* lesson: in a game all about



empowerment, having your power stripped away is more impressive than any new gun.

A glowing button entices me into a cage, which lowers me underwater and into the shaft I saw earlier (aha!), and then slowly carries me down a long passageway. I begin to drown, watching my HP tick away with each choking gasp. It lasts just long enough for me to worry that I've screwed up, and then the cage crests the surface and I can breathe again. Just the kind of contraption a wizard would build to entertain himself and freakout the in-laws. Without a line of dialogue,

The Wizard's Manse still manages to tell some little stories.

LIKE MAGIC

The Wizard's Manse isn't a flashy level, but it sets up some of *Quake's* best ideas to come. The next level, The Dismal Oubliette, closes out episode two with a great centrepiece, an L-shaped bridge that eventually rotates as you progress and find buttons that activate it. At the start, it taunts you with paths you can't take, one holding a tantalising 150 point yellow armour. But there's also armour in the very first room you

DIMENSIONS OF THE PAST

Anniversary celebrations



Back in 2016, for *Quake's* 20th birthday, modern *Wolfenstein* developer MachineGames released a new *Quake* episode called *Dimension of the Past* (or *DOPA*, which is much funnier). The episode includes nine levels, revisiting *Quake's* hodgepodge aesthetics from a military base to an ominous mansion. Fingers crossed that *Quake's* 25th, in June 2021, sees a similar celebration. You can download *DOPA* here: cdn.bethsoft.com/quake/dopa.rar.



THE TOWER IN THIS LEVEL-WITHIN-A-LEVEL HAS ITS OWN SATISFYING CLIMB

start on, which means that yellow armour is actually a premonition: *you're gonna need that later.*

The Dismal Oublette has just as much fun with medieval contraptions as The Wizard's Manse. Its first room off the centre bridge makes you press a switch to raise a set of stairs out of a pool, and another switch seems like it'll probably rotate that bridge you just left. But no, it actually opens a secret door, the kind you usually have to discover with a shotgun blast to a suspicious-looking wall.

I love when '90s shooters play with the rules of what does and doesn't constitute a secret. Sometimes the only way through a level is actually through a secret room, which heightens that feeling that you're alone in a strange, hostile environment, forging your own path. *Quake* makes The Dismal Oublette feel like a grand culmination of episode two by hiding half of the

level behind the kind of door that would usually just lead to a closet with some ammo and armour.

Behind the door lies a whole new area with an intimidating tower (and moat!) in front of you, guarded by a Shambler. In hindsight, hiding all this behind a secret door makes a lot of sense if you know what oublette means. First-person shooters got a bad rap back in the day, but they must've taught kids at least a few new vocab words, too.

The tower in this level-within-a-level has its own satisfying climb, much like the one in The Wizard's Manse. From the shore across the moat you can see a Shambler pacing back and forth on the top floor. A couple of minutes later, standing over his corpse, you can press a button to rotate the bridge back at the start. Another wall slides to the side to reveal a secret path, which takes you back to the other side of the moat, to a small alcove you probably didn't even notice the first time.

Returning to the centrepiece rewards you with a new route, and the second area that spokes off the centre bridge also sends you up to two enemy-packed floors on an

elevator before returning to the ground floor to claim your prize, the final bridge button. The level is spent fighting your way to the top, then earning a breather before you head back to the middle and start again.

This style of design still exists in games today, but most big-budget shooters are about crossing a larger map and surviving setpieces along the way. Nothing wrong with that, but it doesn't trigger the almost Pavlovian reaction my brain has to closing a loop in a classic shooter, where every accomplishment ends in the revelation that all this time, I was actually just feet away from where I started. It's like a sleight-of-hand card trick: even when I know it's coming, it's still a tiny thrill.

Quake doesn't pull out that trick in every level, but when it does it does it well. It doesn't look so hot in 2021, and the fantasy setting is about as deep as a kid putting on his robe and wizard hat to cosplay. Play a few levels, though, and you'll understand why throwback shooters like *Dusk* skipped 20 years of progress to go back to *Quake's* school of level design. It's still a riveting textbook. A textbook with guns. ■

ANDY KELLY



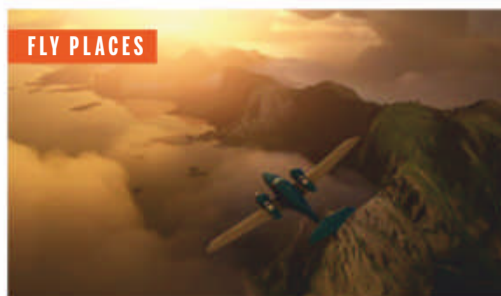
When you play videogames, you can be anything you want – from a commercial airline pilot, to a depressed courier with a weird baby strapped to his chest.



MIXOLUMIA

mixolumia.com

→ At its core, this is a pretty standard block puzzler. Connect the colours, watch them disappear. But the diamond-shaped play space, and its simulated gravity, is an interesting spin on the genre. Blocks can split apart and slide down the angled parts of the board, letting you set up chain reactions. It's pretty addictive.



MICROSOFT FLIGHT SIMULATOR

microsoftflightsimulator.com

→ 'Next generation' is a pretty nebulous term that usually just means 'more realistic mud', but playing Microsoft's latest flight simulator feels like a genuine leap into the future. Being able to pick anywhere – literally *anywhere* – on Earth and fly there is a stunning technical achievement.



DEATH STRANDING

deathstranding.com

→ If you'd rather stay closer to the ground, try *Death Stranding*. This post-apocalyptic epic from Hideo Kojima is a walking sim in the most literal sense, challenging you to deliver packages across a ghost-haunted landscape. It simulates balance, grip, and weight, and just staying on your feet is a challenge.



RED DEAD REDEMPTION 2

rockstargames.com

→ After the relentless noise and chaos of *Cyberpunk 2077*'s Night City, I yearned for the quiet open spaces of *Red Dead 2*. And revisiting it only reinforced my opinion that this is probably the best open world game on PC, with a great story, likeable characters, and a setting that's rich and stunning to look at.

MUST

★

PLAY

*A PERSONAL LIST
OF THE BEST
GAMES YOU CAN
PLAY RIGHT NOW*

by Andy Kelly



ASSASSIN'S CREED VALHALLA

assassinscreedvalhalla.com

→ One of the smartest things Ubisoft has ever done is decide to turn *Assassin's Creed* into *The Witcher*. *Valhalla* is the most Geralt-ish entry in the series yet, and it's all the better for it. This is a highly enjoyable, lightweight RPG, following the adventures of spirited Viking Eivor as they establish a new life in Britain.



PARADISE KILLER

paradisekiller.com

→ In this surreal open world detective adventure you must crack a brutal, seemingly unsolvable crime. But there's no prescribed path; just an tropical island littered with clues, suspects, and other mysteries. You decide when to take your case to court, but it's entirely possible to pin the crime on the wrong person.

METAL GEAR SOLID:
GROUND ZEROES

konami.com

→ This might seem like a glorified demo, featuring only one level compared to the large open spaces of *The Phantom Pain*. But I believe it's one of the best entries in the *Metal Gear Solid* series. The prison camp is a superb sandbox and the missions are brilliantly designed.



PRISON ARCHITECT

introversio.co.uk

→ Don't let the art style fool you: this prison building and management sim reflects the grim reality of life in the big house. As warden you'll have to deal with riots, escapes, executions and worst of all, spreadsheets. You can even end up as an inmate in your own prison if your negligence leads to too many prisoner deaths.



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IT'S ALL OVER...



DEFIANCE

You don't tend to see the words 'multimedia' and 'enduring' in the same sentence often, do you? This ambitious attempt at a story told across both a TV show and an MMO didn't defy the trend, managing only to be forgettable in two mediums simultaneously.



PARAGON

There was a time when this shiny action-MOBA seemed like it would be Epic's next big hit. Instead, it was so badly eclipsed by a rushed-out battle royale mode for the then-nascent *Fortnite* that it winked out of existence before it even made it out of open beta.



PROJECT COPERNICUS

Kingdoms of Amalur: Reckoning was meant to be a prelude to this MMO. Despite never making it to launch, it managed to drive not just the studio but the entire state of Rhode Island into financial ruin.

PC GAMING



The games that, er, didn't define PC gaming



BATTLEBORN

The world simply wasn't ready for, in Randy Pitchford's own words, "FPS; hobby-grade co-op campaign; genre-blended, multi-mode competitive e-sports; meta-growth, choice + epic *Battleborn* Heroes!".



CRUCIBLE

You'd think a billion dollar company that owns Twitch would have no trouble developing and marketing a successful game. Instead, *Crucible's* launch was so disastrous it Benjamin Button'd itself back into beta and then nonexistence.



DAIKATANA

"John Romero's about to make you his bitch" promised the controversial advertising for this ambitious *Quake* follow-up; on release it flopped so badly that he struggled to make anyone anything other than vaguely disappointed in him.

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