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"IF 2020 HAS YOU CRAVING BRAVE NEW WORLDS, READ ON..."



ROBIN VALENTINE

Specialist in
Second contact

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This month
Just needed his own
space, OK?

to how truly enormous a project it's shaping up to be. If 2020 has you craving brave new worlds, read on to find out more...

ROBIN VALENTINE
MANAGING EDITOR
robin.valentine@futurenet.com

Considering its starting point was already an entire simulated galaxy, it's been incredible to watch *Elite Dangerous* grow in the six years since launch. From planetary landings to first contact, Frontier's additions have only gotten wilder and more ambitious over time.

So when we say *Odyssey* is bigger than anything the studio's done before, it speaks

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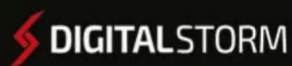
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NEWS | OPINION | COMMENT



Like this big gun, *Modern Warfare* is becoming a bit unwieldy.

BIGGEST BOY

CALL OF DUTY: MODERN WARFARE'S ridiculous size has become a problem

Call of Duty: *Modern Warfare* is large—so large, that you can't even fit it on a 250GB SSD. Given the ballooning size of games, anyone with a 250GB SSD is probably going to be used to deleting stuff to make room for new games and updates, but now it looks like an upgrade might be in order.

Even among today's space hogs, *Modern Warfare* is a bit of an anomaly. The updates alone would make any reasonable person balk. It's a relentlessly ravenous game that's never content, always after more

room. It's also just a big game. There's a massive battle royale stuffed in there, remember.

It's always been preposterously large, but it finally surpassed 200GB back in August, and it's only continued to grow. If you've got anything else on your SSD, especially

your OS, then 200GB is out of reach, especially since that's after compression. The downloads are even more massive. Even just needing a dedicated drive for one game seems wild, and now we're at the point where even that's not enough. It has just gotten way too big.

DRIVE ANGRY

Since it's an endless live service game, this poses even more of a problem. No games come close to *Modern Warfare*'s size, but there's an increasing number of them hovering around the 100GB mark—the difference is that most of them won't be taking up that space for long.

**IT'S ALWAYS BEEN
LARGE, BUT IT
FINALLY SURPASSED
200GB**

BRIGHT SPARK

RAZER VISA CARD



Razer is trying out a prepaid Visa card in Singapore, presenting itself as a 'gamified rewards system'. If you grab the Premium card, it comes with a green LED logo. ■ DJ

PET PARADE

ASSASSIN'S CREED VALHALLA



Not only can you pet the dogs in Ubisoft's upcoming Viking adventure, you can also pet the cats. As a bonus, they're massive fuzzy monsters worthy of a Norse warrior. ■ RW

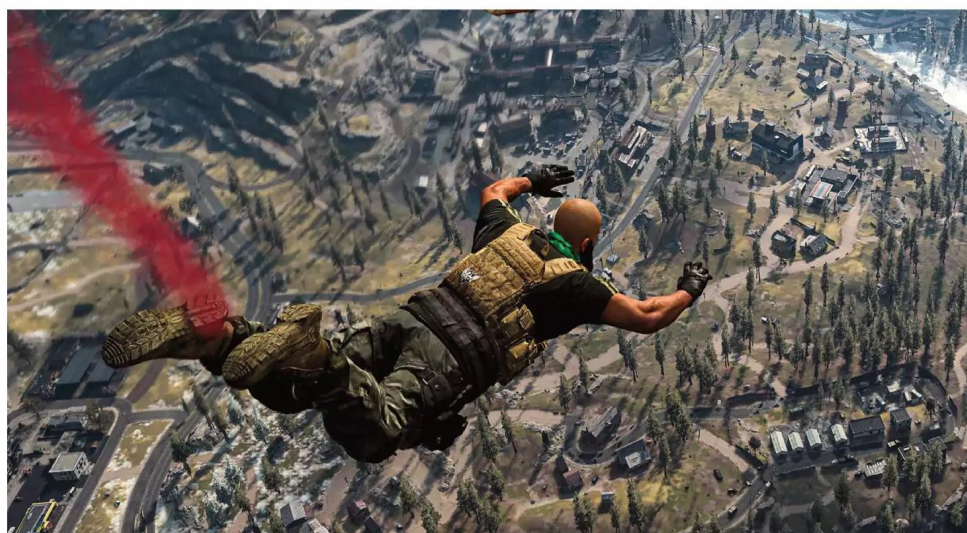


HOLD YOUR BREATH

CYBERPUNK 2077 DELAY



CD Projekt's highly anticipated behemoth has been delayed yet again, this time to December 10. It's saying the extra time will go towards optimization and bug-fixing. ■ RV



ABOVE, TOP:
Warzone on its own is around 100GB.

ABOVE, BOTTOM:
How much space is Price's facial hair taking up? Shave him.

Modern Warfare, with its multiplayer modes and Warzone, is a game you're meant to keep coming back to, making it a permanent resident in your library.

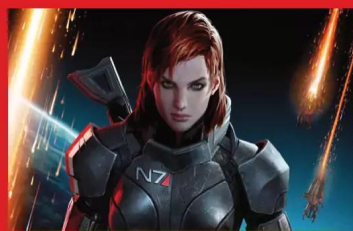
Even if you've got the space, it's a big barrier. I've got enough room in my SSD that I can squeeze it in after moving a few things around, but why should I go through that if I just want to take Warzone for a spin, or play some singleplayer? It's not just about the size. This beast also takes a long time to download. That's a big chunk of the day where you might not be able to stream or download anything else, unless you're willing to wait even longer.

Finally, though, there is a solution—it's just a surprise that it's taken so long. The 1.28 update lets you pick the modes you're actually going to play. Just interested in Warzone? You can download just what's necessary for the battle royale. From the options menu on Battle.net, you can pick any combination of Warzone, Special Ops, multiplayer and the campaign. Console players were already able to do this, though, as did previous *Call of Duty* instalments on Steam. It's a bit overdue.

Call of Duty: Modern Warfare remains, however, absolutely massive, and with other games catching up, it seems like the days of being able to get away with less than a 1TB SSD are coming to an end.

Fraser Brown

Highs & Lows



HIGHS

Mass Effect

The rumored remastered collection seems more certain, with a 'Legendary Edition' being rated in South Korea.

Final Fantasy XIV

A strange red Chocobo is slaughtering players left and right.

Terraria

After nearly a decade of updates, Re-Logic is calling the game finally complete.

Blizzard

Blizzard is closing down its Versailles office and cutting hundreds of jobs.

Crucible

Amazon's free-to-play shooter launched in May, quickly got kicked back into closed beta, and now it's closing its doors for good.

Nvidia RTX 3080

The RTX 3080 is unlikely to get much easier to find. Along with the 3070, Nvidia says supply will outstrip demand until 2021.

LOWS



Special Report

PCG INVESTIGATES



Is red the canonical impostor? In this essay, I will...

BIG TIME

How 2018 indie sleeper **AMONG US** became a global smash hit

In September, *Among Us* entered the all-time, record-setting peak player club on Steam. According to Steamcharts, 388,385 people played *Among Us* simultaneously, more than *GTA V* on its Steam debut. And that's not even counting the millions on iOS and Android.

How did *Among Us* become such a sudden phenomenon, nearly two years after it launched? So big that it became the most-streamed game on Twitch in September, and its developer cancelled plans for a sequel to keep working on it? There's more to it than just viral Twitch popularity. A few key things made *Among Us* a massive hit: Free mobile apps, extremely low PC system requirements, and the Mafia. I'll explain that last one first.

The game at the heart of *Among Us* has actually been around for decades. *Among Us* is the latest popular adaptation of Mafia, aka Werewolf. This social deception game, about a group of players trying to identify the traitor(s) in their midst, dates back to the 1980s. *Among Us* adds structure to the basic experience: Players have a chance to win by completing objectives around the map, which inevitably spreads out the crowd and gives the impostors a chance to strike.

A big part of *Among Us*' success is simply that Mafia is a fun, endlessly playable game that scales well to big

groups. But in 2020, getting together to play games like Werewolf in-person isn't really an option. We're primed for social interactions to play out over Zoom and voice chats, and *Among Us* is an easy laugh generator with friends. Or people who are soon to be unfriended...

"You know a game like *Among Us* is good when the conversations get really heated," says SR_Kaif, who was one of the first streamers to consistently play *Among Us* for an audience on Twitch. "The art style is charming and the gameplay is very simple, you don't really need an explanation on how to play the game compared to other social deduction games like *Town of Salem* or *Deceit*."

The smartphone apps also open up *Among Us* to a massive (and young) audience beyond PC gaming, and it'll run on basically any PC dating back to 2010. The barrier to entry is extremely low. These are all reasons for *Among Us* to be a popular game right now, but they don't explain why it blew up—how it went from unknown to the biggest game on Twitch and one of the biggest on Steam.

At the start of July, *Among Us* averaged just a couple hundred viewers on Twitch, according to tracking site SullyGnome. By the end of August, it averaged over 100,000. Early bursts of exposure on Twitch rapidly snowballed into a huge increase in viewers, and that translated into more and more players. It's also noteworthy that viewers aren't just concentrated around



Pretty 'sus'

Just how big is *Among Us*? Big enough to propel 'sus' into everyday conversations. 'Sus' is shorthand for 'suspicious' in *Among Us*, but quickly became a meme because in a game built on paranoia and baseless accusations, everything can be 'sus'. If you hear someone say 'sus' out loud, they probably got it from *Among Us*... or they're an impostor.



FAR LEFT: Never trust a guy with an alien hat.

LEFT: *Among Us*' maps encourage you to split up, but that's when it all goes bad.

Twitch superstars—the top 100 *Among Us* streamers are all pulling in good to great numbers.

The most successful *Among Us* streamer during its boom was xQc by a longshot. The former *Overwatch* pro's watch time dwarfs other streamers at more than 11 million hours through September.

IMPOSTOR SYNDROME

But who kicked it off? Before *Among Us* was everywhere, SR_Kaif had been streaming it for months. His first stream in December 2019 crossed 1,000 viewers, something he'd only reached streaming indie horror game *SCP: Secret Laboratory*. "I decided to post a YouTube video of it in January as well as uploading the VODs to my VOD channel and from that, I saw my concurrent viewers jump to 2,000 around mid-February," Kaif says. xQc's audiences would dwarf that, but it was impressive for Kaif, who now has about 136,000 followers (to xQc's 3.6 million).

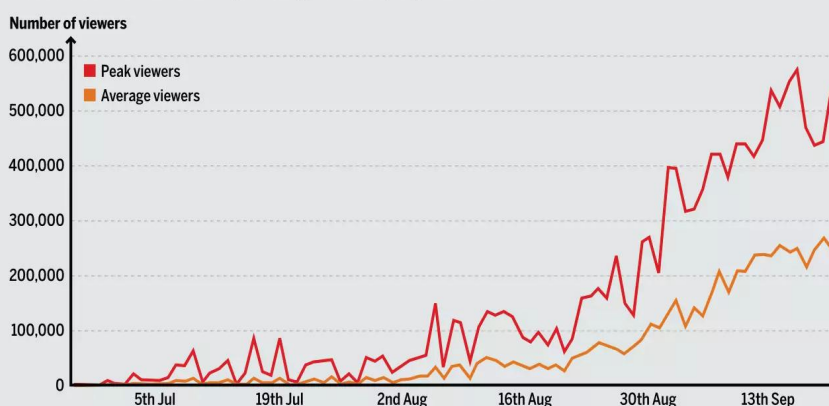
Starting in May, some mid-sized streamers picked the game up, giving it a big boost. By the end of July, *Among Us* had rocketed 400 positions in average viewers into the top 50 on Twitch thanks largely to massively popular streams by Sodapoppin and xQc and a contingent of Korean streamers who rallied to the game. An underappreciated part of *Among Us*' success is its language support—it's available in English, Portuguese, Spanish, and Korean.

When Sodapoppin first played *Among Us* in July, he got friends and fellow streamers to play, which seems like a key ingredient in *Among Us*' future stratospheric viewer growth. Putting ten streamers in one room just magnifies the celebrity power.

It took a surprisingly long time for *Among Us*' activity on Steam to catch up with the rising interest in streams. Steam reviews show an uptick in new players at the very end of July, but the last week of August is the really huge jump. After massive Twitch exposure, PC gamers were starting to play *Among Us* en masse.

AMONG CHARTS *Among Us*' growth, by the numbers

TWITCH TRAFFIC EXPLODES
Twitch traffic show how *Among Us* went from no viewers to peaks of over 500,000 in just three months.



STEAM CATCHES UP

Among Us' Steam traffic jumped up in August, but it lagged behind Twitch. It didn't properly explode until September.



LANGUAGES

Without supporting Spanish, Portuguese, and Korean, *Among Us* may have been a hit, but not a phenomenon.



IT'S STILL HARD TO PUT INTO PERSPECTIVE HOW QUICKLY AMONG US HAS GROWN

It's still hard to put into perspective how quickly *Among Us* has grown. Even though it was gaining thousands of players and many more Twitch viewers over July and August, September was on another level. On September 3, it had around 10 million downloads on Android. By September 21, more than 100 million.

Tracing *Among Us*' rise back throughout the year, it seems like SR_Kaif helped prime *Among Us* for its big moment. He's been streaming it every month since January, pulling in more and more viewers. The rest of the PC gaming world just finally started paying attention. Still, he

doesn't claim any credit. "I wouldn't say the success of the game had much to do with me," he says. "Although the devs mentioned that the games player base was dwindling around the time I picked it up, it wasn't going to take off without the big streamers such as Sodapoppin playing it. It is cool to be along for the ride though!" ■

Wes Fenlon

Positive Influence

INSPIRATIONS AND CONNECTIONS IN GAMES

CARD MODE

What links *Thomas Was Alone* to an ancient solo game?

There's a PC game with 35 million players a month that's never talked about. It might have been your first ever single-player experience, or the game you've played more than any other—but its ubiquity is such that it's simply become part of the desktop wallpaper. Its name is *Microsoft Solitaire*.

"It becomes background noise, and was designed to do so," says Mike Bithell. "The main purpose of putting it into Windows was as a tutorial for mice. It's every core mouse gesture—clicking, double-clicking, dragging and dropping."

At the beginning of October, Bithell Games released *The Solitaire Conspiracy*. Unaffiliated with Microsoft's version, it builds on the classic card game with characters, powers, FMV cutscenes, and a daft espionage story about a Cyber Augmented Recon and Defence System. Yes: C.A.R.D.S.

It's not the first time a Bithell game has spun out from a tutorial. 2015's *Volume* was inspired by the first *Metal Gear Solid*, but not its story campaign—rather the adjacent 'VR missions' that taught you the mechanics of stealth in abstract, blocky environments. "Even though the newer *Metal Gear Solids* are objectively better games, there was a

charm to the very binary states," Bithell says. "You're either seen or you're not seen, and I always really liked that."

SHIFTING GEARS

Bithell's indie career began with a moment of sudden understanding—an existential tutorial, if you like. Back in the late 2000s, strange as it may seem now, making an indie game wasn't an obvious option to game developers.

"I'd come up in an era where there were developers and publishers and a process," Bithell says. "If you were a British game developer, you were going to work at Lionhead or Rockstar North and be part of a big team."

Bithell himself was working on family platformers for Blitz, the now-defunct studio owned by '80s industry elders the Oliver Twins. But during one lunch break he downloaded *World of Goo*, and discovered it was made by just two people. "It was an epiphany for me," he says.

Bithell built a platformer over a weekend, and released it on Kongregate. The platform featured games of varying quality—but that helped Bithell get started. "Like 'zine culture, the messiness is what makes it accessible," he says. "It wasn't premeditated as a commercial project. I think if I'd done that it would probably have been too much pressure and would have fizzled out."

The prototype found an audience, and over the following four years Bithell turned it into *Thomas Was Alone*—a full game elevated by emotive, optimistic writing. In the years since, that writing has been the glue that connects his disparate, multi-person projects.

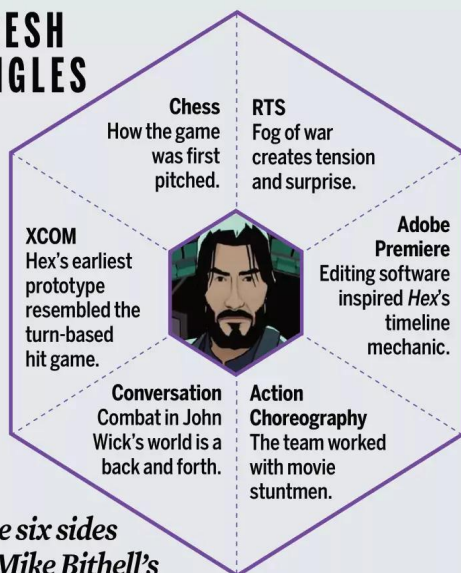
"I read a lot of history," he says. "Human nature over the ages is something I'm very interested in, and also the biases in how we write history."

Recently, Bithell made writing a mechanical component of his games with *Subsurface Circular*—a branching RPG quest set in a subway carriage. "We were known for story," Bithell says, "But there was never any kind of emergence and I never liked that. We're in videogames, we should be doing some kind of interaction in our storytelling."

While *Subsurface Circular* was influenced by big RPGs, Bithell didn't mention them during promotion, for fear of creating expectations of wide-open worlds and multiple planets. There are some inspirations it's simply not wise to admit to—and comparing your game to *Mass Effect* is asking for trouble. Then again, *Mass Effect* never had 35 million players. It's the silent army of solitaire fans Bithell has to impress, and that may be his biggest challenge yet. ■

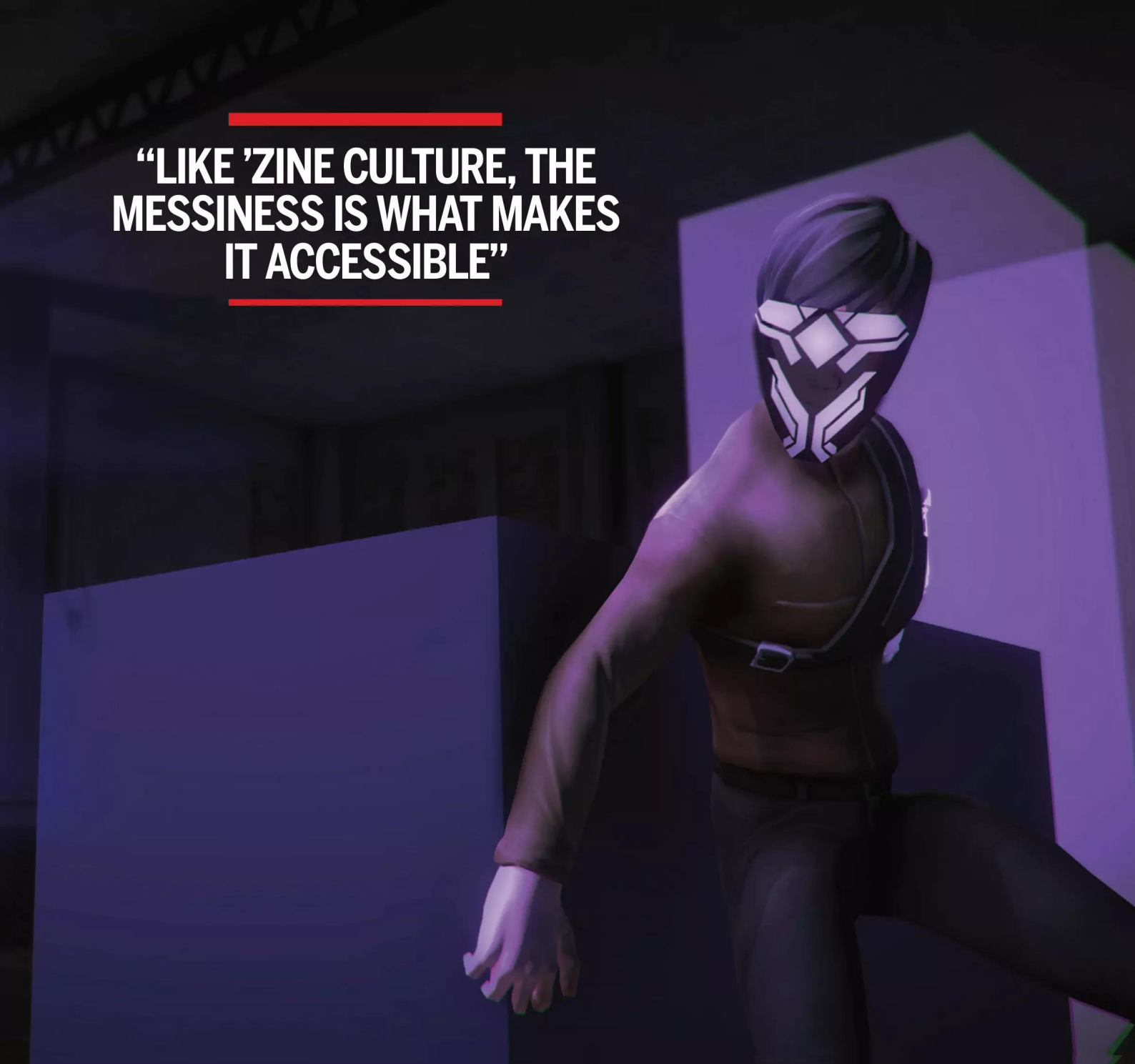
Jeremy Peel

FRESH ANGLES



The six sides
of Mike Bithell's
John Wick Hex

**“LIKE 'ZINE CULTURE, THE
MESSINESS IS WHAT MAKES
IT ACCESSIBLE”**



ABOVE: *Volume's* sci-fi story eerily predicted the UK's split from Europe.

LOWER LEFT: Even after *John Wick*, Bithell Games can't resist an action movie nod.



DNA Tracing

 GAMING'S LINEAGE

**PLAYED TODAY, RETURN TO
CASTLE WOLFENSTEIN
MARKS A CLEAR TRANSITION
POINT FOR THE FPS GENRE**

CALL TO ACTION

How *COD*'s second studio escaped Infinity Ward's shadow

The Gray Matter bundle is a cosmetic purchase available for 1,600 COD Points in *Black Ops III*. It's as mundane as it sounds—you get to unlock a fancy reactive camo effect for your weapons, but ultimately it's just another pack in a multiplayer service game. Yet it's also a tiny tribute, to a tiny studio that exerted an invisible influence on Treyarch during the most critical period in its history.

Gray Matter Interactive was the developer behind *Return to Castle Wolfenstein*. In the '90s, it had made the *Redneck Rampage* games: Sweary, gory, and self-consciously controversial first-person shooters that achieved the highest honour of the time—impressing id Software.

To Gray Matter, id entrusted BJ Blazkowicz and the daunting task of updating *Wolfenstein 3D*—an FPS so rudimentary it had no ceilings or floors—for a new millennium. The studio leaned hard into the occult elements id had only alluded to, reimagining the series as a pulp adventure. The initial demo even included an alarm sound from *Raiders Of The Lost Ark*.

Played today, *Return to Castle Wolfenstein* marks a clear transition point for the FPS genre. In its early levels, castle corridors and secret rooms evoke *Doom* and *Quake*. Then, as it breaks out into the German countryside, it predicts the stealth and freedom of movement to come in *Far Cry*. Finally, it enters the bombed-out ruins of Kugelstadt, realising the cautious house-to-house combat *Medal of Honor* had reached for on the PlayStation.

While the zombies took liberties with history, Gray Matter's research was meticulous, and Activision recognised an opportunity. When Infinity Ward built *Call of Duty*, it did so on the *Return to Castle Wolfenstein* engine—and when the game needed an expansion, Gray Matter was there, wielding a perfectly modeled MP40.

Call of Duty: United Offensive was a huge hit, but like the events it depicted, it represented the heroic efforts of just a few brave men and women. There were no more

than 18 names in *Return to Castle Wolfenstein*'s credits, and as AAA development teams grew larger, Activision decided to bolster its ranks.

BRAIN BANK

Gray Matter was then folded into Treyarch—a studio which had its own PC gaming past in notorious sword-wobbler *Die by the Sword*. By the mid 2000s, though, it was churning out console games for Activision, at a rate of sometimes up to three a year.

Though Gray Matter's name had been subsumed by Treyarch's, its spirit was evident in the games that followed. *Call of Duty: World at War* was a straight historical shooter on the surface, but pushed the series into horror for the first time. In retrospect, the Pacific missions were problematic—its Japanese soldiers were characterized as zombies, frenzied and mindless. But the Russian segment of the game was a narrative highpoint for *Call of Duty*, and arguably Treyarch's artistic peak.

BELOW: Infiltrating Castle Wolfenstein ends badly if you're not named BJ.

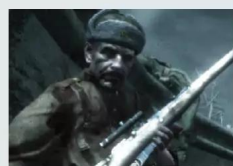
BOTTOM: Treyarch's torture scenes tend towards the gory and gratuitous.

The monologues of Red Army sergeant Viktor Reznov, played with a huge amount of vigor by Gary Oldman, lent the campaign real poeticism—and as the Russians marched on Berlin, that inspiring voice slid sideways into bloodlust and revenge. It was the first time *Call of Duty* had stepped outside the



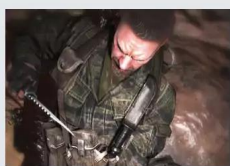
VERY OLDMAN

Viktor Reznov's cameos defy the passage of time



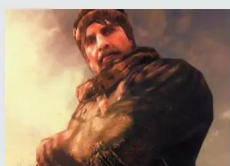
CALL OF DUTY: WORLD AT WAR

Sergeant Reznov was already war-weary by the Battle of Stalingrad.



CALL OF DUTY: BLACK OPS

Still fighting fit in 1968, is he? That's just about possible, I guess.



CALL OF DUTY: BLACK OPS II

Is that Vik on horseback in Afghanistan in 1986? Or is it a mirage? Spooky.

DNA Tracing



CALL OF DUTY
Infinity Ward used
Wolfenstein's toolkit
to build its levels.



**RETURN TO
CASTLE
WOLFENSTEIN**
Gray Matter's
horror-tinged reboot
of the anti-Nazi FPS.



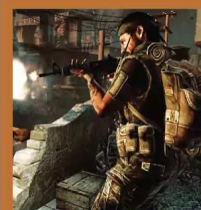
**CALL OF DUTY:
UNITED
OFFENSIVE**
A well-liked expansion
from the *Wolfenstein*
developer.

KEY

- Infinity Ward
- Gray Matter
- Treyarch



**CALL OF DUTY:
WORLD AT WAR**
Gray Matter joined
Treyarch for its first
COD on PC.



**CALL OF DUTY:
BLACK OPS**
Grim, dark, and
non-chronological. Set
the formula.



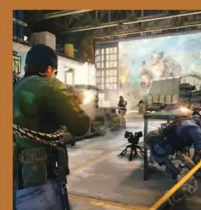
**CALL OF DUTY:
BLACK OPS II**
Now with branching
stories, but none of
them end well.



**CALL OF DUTY:
BLACK OPS III**
Felt lost in its own
far-future setting.



**CALL OF DUTY:
BLACK OPS III**
Forewent single-player
in favor of a battle
royale game.



**CALL OF DUTY:
BLACK OPS
COLD WAR**
Warzone's Raven is
lead dev on the
campaign, so
expect change.

LINE OF DUTY

*Treyarch's history saw two
studios become one*



respectful tone established by *Medal of Honor*, finding a new and more complex sense of unease.

SOMETHING COLD, SOMETHING NEW

Revenge and unease became favorite themes of Treyarch's as the developer embarked on its defining project: *Black Ops*. Studio chairman Mark Lamia persuaded Activision to consolidate the developer's teams for an ambitious two-year gamble. No longer would Treyarch play second studio to Infinity Ward, but instead leapfrog *Modern Warfare*, building on its moral ambiguity and contemporary setting with a story that ran from the Arctic in 1945 to Vietnam in 1968.

Obsessed with CIA cover-ups and brain programming, Treyarch's storytelling became increasingly dark and traumatic, while Gray Matter's horror background shone through in ghoulish direction and even a few jump scares. With the returning Viktor Reznor whispering in their ear, players were left unsure of what was real or who they were fighting for. At times, *Black Ops* endorsed an anti-nationalism bent at odds with the *Call of Duty* games before it; at others, it simply seemed nihilistic. Whatever their politics, these grim flashbacks resonated, and Lamia's gamble paid off.

By *Black Ops II*, Treyarch was one of the most famous game studios in the world, with the confidence to match. Its new stature revealed an experimental streak; the company introduced quasi-RTS levels to its campaign, and built a surprisingly malleable story that was altered by the player's behavior in key moments.

The branching plot, however, chafed against the often restrictive play. In a bid to provide ever more cinematic set pieces, Treyarch tightened its grip over player movements, leading to QTE-like action scenes that asked for very little action. The dissociation could be profound, as if the player was merely the actor, and a body double was performing all of the stunts.

Worse, as *Black Ops* moved into the near and then distant future, it revealed a fixation with bleeping teenage toys. If a teenage sensibility had taken root at Treyarch, however, that's because it had long been rewarded with the pocket money and admiration of teenagers.

DEAD AHEAD

In truth, Treyarch's experiments have tended to connect best when drawing on Gray Matter, rather than its actual grey matter. Late in development, the *World at War* team added a co-op zombie horde mode to its serious shooter, in order to blow off steam. That's what has lasted over a decade: a horror spin-off, just as *Return to Castle Wolfenstein* was to *Wolfenstein 3D*.

The other COD studios only rarely dabble in *Zombies*—it's one of the few things that still differentiates entries in the annualized series. Over the years, the mode has become Treyarch's signature, developing a mythology that spans dimensions. But when a player sits down with *Zombies*, everything they need to know is immediately understood. Overcomplicated, yet fundamentally dumb fun; it's hard to imagine an idea more Treyarch than that. ■

BY BLACK OPS II, TREYARCH WAS ONE OF THE MOST FAMOUS GAME STUDIOS IN THE WORLD

BOTTOM: Law & Order actor Chris Meloni brings some much-needed character to *Black Ops III*.







NEED TO KNOW

RELEASE

December 1, 2020

DEVELOPER

Romero Games

PUBLISHER

Paradox Interactive

LINK

empireofsingame.com

EMPIRE OF SIN

A new boss is in town to take over the forgotten gangster sim genre

I don't know exactly what it was that caused five different gangs to go to war with me at once. Maybe envy, maybe my aggressive expansion into the wrong neighborhoods, or maybe the fact that I allowed the cops to use one of my speakeasies as a hangout in exchange for some leniency from the law.

The sudden surge of chaos felt like a real Paradox touch, where your seemingly stable empire can quickly fall into disarray due to a complex and clever web of systems underpinning AI behavior. Given that developer Romero Games brought on Paradox veteran Chris King as a designer for this glitzy Prohibition-era gangster sim, I should have expected no less.

But despite the onslaught that's seeing my whiskey barrels and ladies of the night slip through my fingers into the ravenous maws of my rivals, I'm delighted. As a fan of the quintessential organized crime sim from the '90s, *Gangsters: Organized Crime*, I've long been waiting for a worthy successor to step into its spats, and *Empire of Sin* could prove to be it.

Lead designer Brenda Romero doesn't have answers for why the old-timey gangster theme has been largely neglected in strategy games, but has been dreaming of making this game for 20 years. "I've definitely been on the edge of my seat a few times when games were announced that took place during this time or broach this theme," she admits. As luck would have it, the few gangster sims in the years since *Gangsters: Organized Crime* have all failed to quite deliver on the crime management fantasy.

With Paradox as a publisher, Romero Games has a benefactor with unparalleled insight into the strategy genre. "No one knows strategy as well as Paradox," Romero tells me. "They've been excellent

in giving us the support needed to get *Empire of Sin* done."

CRIME PAYS

I got to sit down for a few hours with the game, putting me in charge of Dean O'Banion—one of several real-life mobsters you can play as. Other famous faces include Al Capone and Daniel 'Funeral Director' McKee Jackson.

Each boss has their own dialogue, personality traits, and specialties. In Dean's case, he gets cheaper upkeep of breweries and speakeasies but, lacking the gift of gab, has a penalty when coming to agreements with other bosses.

As you play through the game, a part of your strategy will involve learning the bosses' personalities and what to expect from them. "Each boss has a fixed underlying personality that influences their behavior. Their willingness to go to war, the willingness to keep their word, how much they like to build up their rackets," says King. "Then there are the values of the current game situation that drive and influence their decisions, so even the bosses that dislike war can be pushed into war if you are nasty to them."

They all have a unique story too. My first mission as Dean saw me cosying up to the local Catholic Church by clearing the thugs from a local den of iniquity. And the pastor didn't seem to mind when I replaced the thug den with a speakeasy.

The story and side-missions that pop up as the game's persistent clock powers on are all framed within the wider simulation, so how you go about things never feels linear. You win by eliminating all bosses from the game, which means you have the freedom to follow the narrative or just stick to the raw business of taking over rackets, managing booze stockpiles, trading with other mobsters, and, of course, going to war.

Your decisions can haunt you in interesting ways, according to narrative designer Katie Gardner. "Some decisions made earlier in the game might affect

PLAYED IT

YOU HAVE THE FREEDOM TO FOLLOW THE NARRATIVE OR JUST STICK TO BUSINESS

Empire of Sin

» something much further down the road," she tells me. "You can choose to spare or kill a small-time crook, only to find out later that he's more well-connected than you thought." In a similar vein, if I played deeper into my game as Dean, I might have had the option to regain some kudos with other gangsters by poisoning the booze in the bar I put up all those cops in.

During my session, I quickly took over several businesses in my neighborhood before going all-in on the management side of the game, where I spent well beyond a sensible amount of time nerding out on the numbers—profit/losses of each business, distribution of booze barrels across rackets, studying competing rackets and their effect on the number of customers patronizing mine.

Beyond violently eliminating competitors, you can draw more people to your businesses by making improvements—a live band in your speakeasy, a strip pole in your brothel, that kind of stuff. Businesses complement each other too, and I found that sending more booze barrels to one of my less profitable casinos encouraged visitors to be more 'adventurous' with their cash.

FRIEND OR FOE

Despite its simulation leanings, Romero's own speciality in RPGs shines through. Dialogue choices in sit-downs with rival bosses have a big impact on your standing with them, and every character picks up traits based on in-game events. Looking back on my session, I can see why my foul-mouthed meetings with the Genna crime family caused word to spread that I was not a man to be trusted.

In the interest of immersion, enemy bosses are driven by survival rather than victory conditions. "The AI has been purposely designed to not be a chess AI planning to win the game," King tells me. "Instead they're personalities who will fight and build and do all the things that a boss in Chicago would do. The real Capone never thought 'If I just take over four more rackets I will win Chicago.'"

There are around 60 gangsters for you to hire. Each has their own rivalries with other gangsters, and side-missions that will affect their loyalty towards you.



"THE AI HAS BEEN PURPOSELY DESIGNED TO NOT BE PLANNING TO WIN THE GAME"

Loyalty is one of the systems—the others being honor and notoriety—that affect how characters respond to and respect you. Build up high loyalty with a gangster, and their chances of being flipped by the police decrease drastically.

Interestingly, when I spoke to Brenda it came up that currently loyalty doesn't affect how likely gangsters are to betray you and work for other bosses, which she immediately noted as something that needed fixing. It gave a little insight into how focused the studio is on giving the game that all-important verisimilitude, the sense that all these systems and numbers add up to a logic that feels human in a game that's essentially about extreme human behaviors—honor, loyalty, greed, and power.

Zooming in from the macro-game, your main means of taking over buildings and expanding your empire will be through turn-based combat. While it hits all those familiar *XCOM* cues—action points, varying degrees of cover, overwatch—it feels like a relatively simple version of a formula for which the bar's been set very high by other games. It doesn't feel bad as such, but it doesn't quite match the depth of the rest of the game, and I can see the slow pace of combat bogging down the pacing over the long haul.

The various bugs and teething issues can hopefully be squashed by launch, but these turn-based sections should either be sped up or offer some kind of environmental interaction—flipping tables, leaping over bar counters, using those civilian schmucks as human shields. And how about an option to auto-resolve those hopeless ambushes in the street with a drive-by? Badabing-badabrum.

But there's plenty of time for growth, even after release, with Romero describing launch day as a 'foundation' from which *Empire of Sin* will grow. Like so many great strategy games—including Paradox's own—it's designed with expansion in mind, though what form that takes will depend on feedback from the first wave of players who'll be making their mark on Chicago from December.

That foundation is looking solid, burying the bad memories of disappointing gangster sims from years gone by in the concrete beneath it. There's a lot at play here—simulation, RPG, tactical combat—and while some elements could use some trimming to let others shine through, this could well be the new king of crime sim city.

Robert Zak



Turn-based combat is your main means of expansion, but still needs some work.

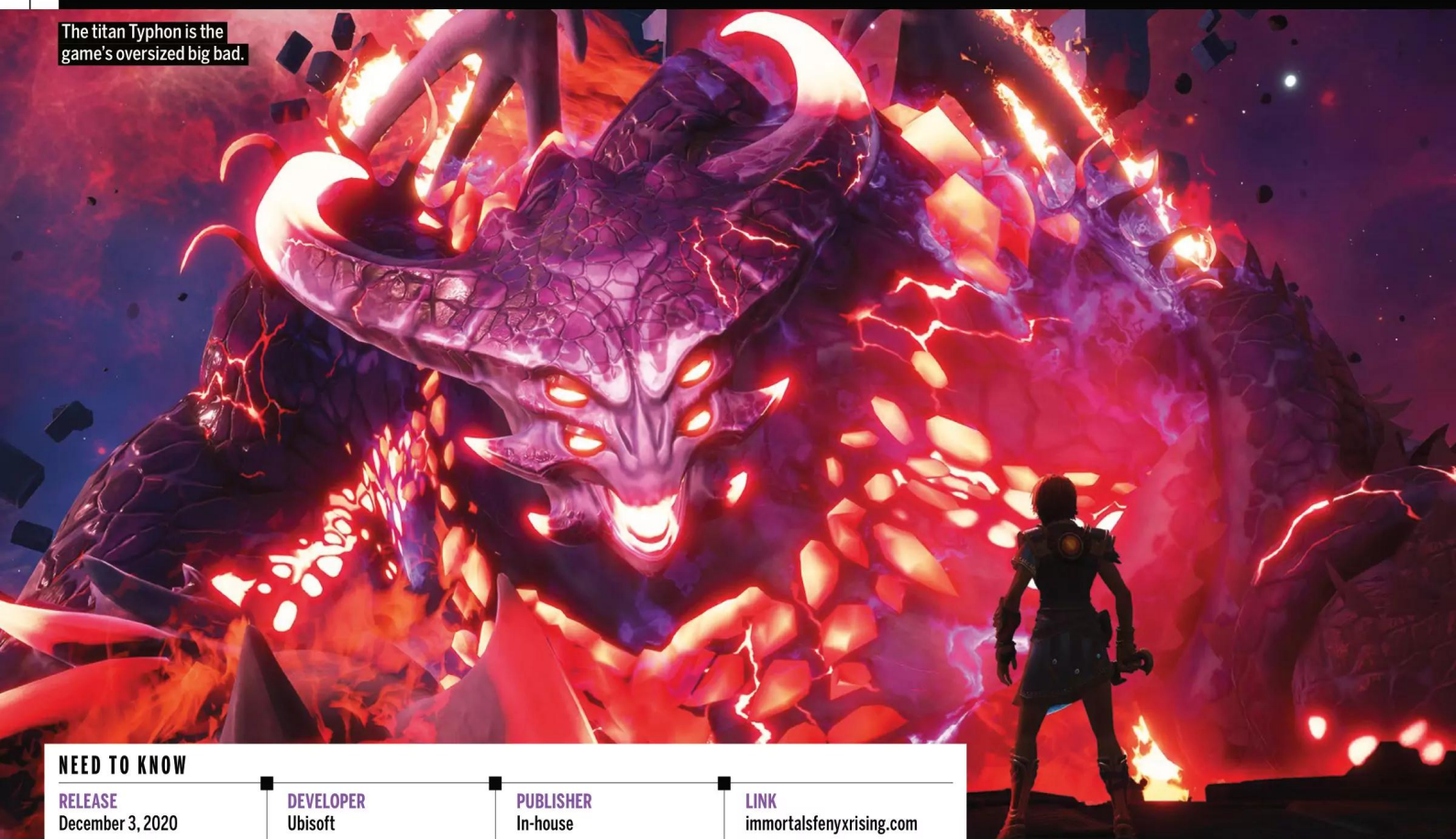


Goldie Garneau

250/250



The titan Typhon is the game's oversized big bad.



NEED TO KNOW

RELEASE
December 3, 2020

DEVELOPER
Ubisoft

PUBLISHER
In-house

LINK
immortalsfenyxrising.com

IMMORTALS FENYX RISING

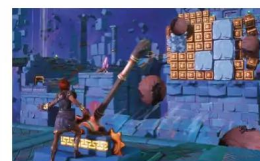
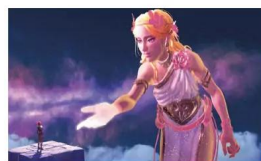
Create your own hero in Ubisoft's mythical open world

The promo material for *Immortals Fenyx Rising* makes its titular hero look pretty generic. But when I played the game myself, I was surprised to discover a character creation system. I was able to make my Fenyx a blue-skinned, red-haired lady with ragged war paint smeared on her face, which made her much more interesting to look at.

PLAYED IT

This is one of several ways *Immortals* distinguishes itself from *The Legend of Zelda: Breath of the Wild*, a game it otherwise shamelessly, but respectfully, cribbs from. Another is accessibility. *BotW* is unforgivingly opaque at times, but in *Immortals* I felt like all of its major systems – including several different upgrade currencies – were explained in full early on. This is more prescribed than feeling these things out for yourself. But it does make *Immortals* much easier to get into.

As I explore the Golden Isle, a mythical island created by the gods and swarming



with monsters, I find myself in a region that is home to the goddess Aphrodite. Each area of the island reflects the god who lives there, and I'm surrounded by plains of swaying grass, trees with fluffy pink leaves, and sparkling waterfalls. The island doesn't have the same elegant, subtle sense of mystery as *Zelda's* Hyrule, but it has its own charm. It's a beautiful game, let down by some robotic facial animation. I can't help but feel the superb voice acting deserves better.

MYTH TAKES

Fenyx, a Greek soldier who washes up on the shores of the Golden Isle, has been recruited to rescue the gods from the evil titan Typhon – one of whom is the aforementioned goddess of love and

beauty. According to the legend she was born from sea foam, and one of the most fun quests I found involves Fenyx (sigh... that spelling) recreating this moment by rolling a giant pearl into the sea.

That sounds simple enough, but I had a few problems to deal with. For one, the pearl itself is guarded by a massive cyclops who instantly kicks my ass whenever I try to attack it head-on. So I decide to improvise, sneaking up on him, stealth-stabbing him in the back for double damage, running away until he loses sight of me, then repeating that until he topples over. It's cool that *Immortals* allows you to experiment like this.

With the pearl freed, the next problem emerges: Actually getting the thing to the sea. This involves rolling the massive, shiny sphere through a series of enemy-filled canyons and using my *Zelda*-ish telekinesis powers to clear a path through piles of rocks. It's a fun quest, mixing puzzling and combat. Eventually I hurl the pearl into the sea, which whips up a bubble of foam, and I'm one step closer to rescuing Aphrodite.

Andy Kelly

FENYX HAS BEEN RECRUITED TO RESCUE THE GODS FROM THE EVIL TITAN TYPHON

NEED TO KNOW

RELEASE
Spring 2021DEVELOPER
Neocore GamesPUBLISHER
In-houseLINK
kingarthurnightstale.com

KING ARTHUR: KNIGHT'S TALE

Turn-based strategy with a dark twist on a classic tale

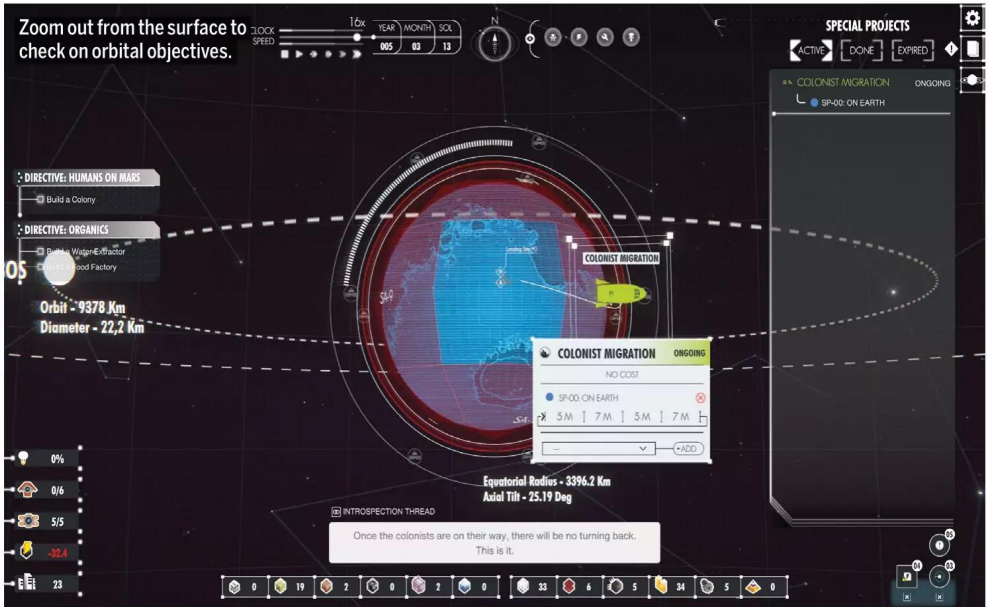
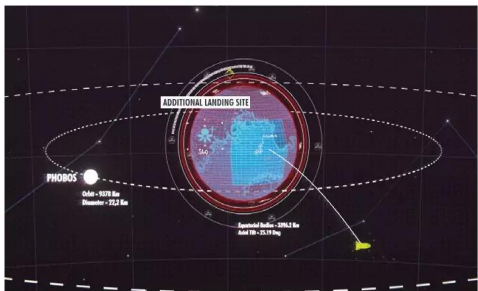
After both he and his hated arch-rival King Arthur are slain in their last battle, the dark knight Mordred is brought back to life by the Lady of the Lake. Her goal? To send him off to kill the king once again—or, at least, the thing the once-noble ruler has now become. Arthur's corrupted form is warping the land around him, turning the once beautiful Avalon into a nightmarish hellscape filled with demons

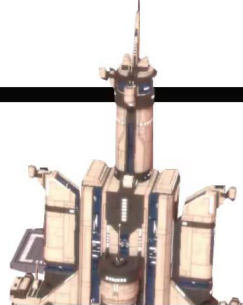
FIRST
LOOK

Surviving this grim version of Arthurian legend means recruiting your own version of the Knights of the Round Table for XCOM-like turn-based battles. You can level up and customize them as you go, but in line with its inspiration, you shouldn't get too attached—not only is sudden, permanent death very much a hazard of the job, your knights might even just leave your band if they're not happy with how you're running things.

Each of these temperamental warriors falls into one of five classes, with their own skills and gear. You'll command hulking tanks in heavy armor using wide sweeping attacks to hit multiple enemies, powerful but frail wizards creating walls of fire, and more—and knowing which to bring into each battle is key. When dealing with some of the more grotesque horrors, scouting, setting traps, and picking your fights carefully can keep your knights from getting maimed or worse.

Jorge Jiménez





NEED TO KNOW

RELEASE
2020DEVELOPER
TLON IndustriesPUBLISHER
Raw FuryLINK
per-aspera.vg

PER ASPERA

Grow a colony that extends across the entire Red Planet

As an AI overseeing the colonization of Mars, things are going swimmingly with my fleet of robots and drones. Only when the human colonists arrive do things take a turn for the worse. Humans need water, food, air... plus one of them may be trying to sabotage the colony. Humans suck.

Don't think of *Per Aspera* as *SimCity* on Mars. Your colony isn't a single metropolis, it's way, way bigger, and it will eventually extend across the entire surface of the Red Planet. The end goal isn't just to mine resources and build structures that can support human life, but transform the planet itself into a habitable environment through terraforming. Melt the polar ice caps. Increase the temperature. Create a breathable atmosphere. Research new technologies that will allow you to lasso gas-laden asteroids and exploit the moons of Mars for additional resources.

It's a big job, city building on a planetary scale. I've already got space mirrors in orbit to reflect extra sunlight down to the planet, I've scattered black dust into the thin atmosphere to warm the poles, and I've got my sights set on building a space elevator, mostly because it sounds cool. My human colonists may currently be living indoors, but the plan is to someday build open air cities.

SEEING RED

But at the moment, Mars is an incredibly hostile environment. Sandstorms can

lessen the output of my solar power plants, lowering the productivity of my robot-staffed factories. Concentrated meteor storms resulting from the tail of a passing comet threaten to pummel my entire base into (red) dust.

The further out I build, the more I can accomplish, but I don't want to expand too much until I've manufactured an atmosphere thick enough to prevent meteors from hitting the ground.

The initial colony building is a bit slow-going. I began with just a single robot worker, zipping between my first structures and building everything by itself. My first mines produce iron, carbon and aluminium, and my first power source is a single solar plant. But the more I gather and build, the more power I need, and soon I'm examining the windiest areas to place turbines so I can keep the lights on even when the sky darkens with dust.

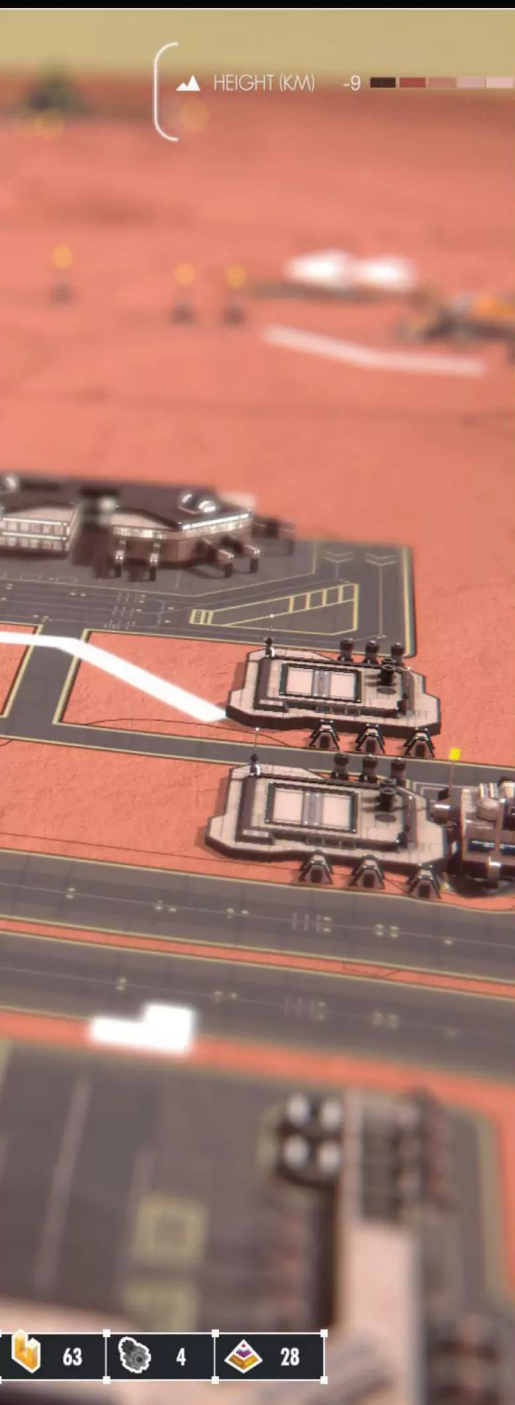
Adding additional spaceports allows me to launch new types of missions. On a planet constantly bombarded with space rocks, it's a good idea to not have all my eggs in one basket, so I seek out a new spot on the planet to build an entirely

self-sufficient secondary city. Soon I'll make areas on the other side of the planet accessible to my robots and colonists, too, eventually forming a network of bases and cities.

And there's a story developing alongside my Mars colony. As an artificial intelligence, I'm still growing and learning, and have frequent conversations with my human contact on Earth and a few of the people living in my colony. There's some tension in our chats, and I find myself not entirely trusting the information he's passing on to me. To be honest, I'm not sure I trust myself. Despite the fact that I'm an artificial consciousness, I think I might need therapy.

My preview of *Per Aspera* ends with the sabotage of several of my colony's buildings, and a mysterious message from an unknown source that doesn't want Mars to be inhabited at all. After the mess we made on Earth, I can sympathize, but if it's one of my colonists sabotaging my efforts, what does it mean for the colony's future? And if it's something else, like a figment of my artificial imagination, what does that mean for me?

Christopher Livingston



I'VE ALREADY GOT SPACE MIRRORS IN ORBIT TO REFLECT EXTRA SUNLIGHT

Creepy cracked doll faces: a horror staple.

NEED TO KNOW

RELEASE
December 10, 2020

DEVELOPER
Bloober Team

PUBLISHER
In-house

LINK
themediumgame.com

THE MEDIUM

A ghost story that explores horror in two realities

Polish-based studio, Bloober Team, has gotten pretty good at spooking players with its games. But the studio's latest, *The Medium*, tries out a new twist: It's an adventure across overlapping realities.

FIRST LOOK

"Our projects are based around the central motifs of perspective and perception," Bloober's game producer Jacek ZiDba says. "In *The Medium*, we have both the real world and the world of ghosts. Throughout the game you will explore both worlds, and not just independently of one another, but simultaneously."

The Medium's two realities are played through a split screen, where you can see two versions of the protagonist, a psychic called Marianne, in two different worlds. Your actions in one will have a direct effect on the other, and this is where the puzzle solving comes in. Marianne can do something in the spirit world that might open a pathway for her in the real world.



"The spiritual world is our own original take and interpretation of what a medium sees," ZiDba says. "Marianne not only sees into the spirit world, but she co-exists there. It's a world of nightmares, dreams, and the things that are hidden to us, be that in life, or in death."

SPLIT-SCREAM

The spirit world might look like something out of a dark fantasy story, but it's inspired by real-world trauma, with Marianne haunted by visions of a young girl being murdered. Wanting to learn more about the apparition, she travels to an abandoned hotel where she uses her spirit powers to investigate.

It's not just the disturbing imagery you'll have to stomach in this ghost story.

Marianne will also need to survive encounters with evil spirits, including a creature called The Maw, "a monster born from an unspeakable tragedy".

"The spirit world is in itself a kind of adversary," ZiDba says. "It's a dark reflection of what lies dormant in all of us, and for Marianne, just visiting this world is an unpleasant and oppressive experience and we really want the player to feel those emotions alongside her."

Bloober is fantastic at taking a character's internal griefs and externalising them in creative, horrific, ways. For the gruesome manifestations in *The Medium*, the studio looked to the works of Polish dystopian surrealist Zdzislaw Beksinski and his disturbing paintings. His art depicts scenes of death and decay, and he seems to really love creepy skeletons—Google his collection of paintings at your own peril.

I've always enjoyed Bloober Team's interpretation of psychological horror, and I'm looking forward to exploring *The Medium's* spooky new realm when it releases this coming December.

Rachel Watts

If you played Big Fish Casino, Jackpot Magic Slots, or Epic Diamond Slots you may be part of a class action settlement

A Court authorized this notice. This notice may affect your legal rights. Please read it carefully.

A settlement has been reached in class action lawsuits against Big Fish Games, Inc., Churchill Downs Incorporated, Aristocrat Technologies, Inc., and Aristocrat Leisure Ltd. (“Defendants”), alleging claims based on the sale of virtual chips in the following social casino-style games: Big Fish Casino, Jackpot Magic Slots, and Epic Diamond Slots. Defendants deny all claims and that they violated any law, but have agreed to the settlement to avoid the uncertainties and expenses associated with continuing the case.

Am I a Settlement Class Member?

Our records indicate that you may be a Settlement Class Member. Settlement Class Members are persons in the United States that played Big Fish Casino, Jackpot Magic Slots, or Epic Diamond Slots on or before August 31, 2020. More information is available at www.bigfishgamessettlement.com.

What can I get?

If approved by the Court, Defendants will establish a Settlement Fund of \$155,000,000 to pay all valid claims submitted by the Settlement Class, together with notice and administration expenses as well as any attorneys’ fees and costs, and incentive awards to the Class Representatives, awarded by the Court. If you are entitled to relief, you may submit a claim to receive a share of the Settlement Fund. Your share will depend on, among other things, (1) the total dollar amount of in-game purchases you made while playing Big Fish Casino, Jackpot Magic Slots, and Epic Diamond Slots, with those who spent more money receiving a higher percentage back, (2) whether or not your claims are potentially subject to the Dispute Resolution Provision in Big Fish Games’ Terms of Use, and (3) how many Settlement Class Members submit claims. You can find more information, and estimate your share of the Settlement Fund, at www.bigfishgamessettlement.com.

How do I get a payment?

You must submit a timely and properly completed Claim Form **no later than January 4, 2021**. You may request a claim form or submit one online at www.bigfishgamessettlement.com.

What are my other options?

You may choose to exclude yourself from the Settlement Class by sending a letter to the settlement administrator no later than **January 4, 2021**. If you exclude yourself, you will not receive a settlement payment, but you keep any rights you may have to sue Defendants over the legal claims raised in the lawsuit. You and/or your lawyer also have the right to object to the proposed settlement. Your written objection must be filed no later than **January 4, 2021**. Specific instructions about how to object to, or exclude yourself from, the Settlement are available at www.bigfishgamessettlement.com. If you file a claim or do nothing, and the Court approves the Settlement, you will be bound by all of the Court’s orders and judgments in this case. In addition, your claims relating to the allegations in this case against Defendants and any other Released Parties will be released.

Who represents me?

The Court has appointed lawyers from Edelson PC to represent the Settlement Class. These attorneys are called “Class Counsel.” You will not be charged for these lawyers. Plaintiffs Cheryl Kater, Suzie Kelly, and Manasa Thimmegowda are Settlement Class Members and the Court appointed them as “Class Representatives.” If you want to be represented by your own lawyer in this case, you may hire one at your expense.

When will the court consider the proposed settlement?

The Court will hold the Final Approval Hearing at **1:30 p.m. on February 11, 2021** in Courtroom 15106, United States Courthouse 700 Stewart Street, Seattle, WA 98101. At that hearing, the Court will: hear any objections to the fairness of the settlement; determine the fairness of the settlement; consider Class Counsel’s request for attorneys’ fees and costs; and decide whether to approve incentive awards to the Class Representatives from the Settlement Fund for helping to bring and settle this case. Class Counsel will be paid from the Settlement Fund in an amount to be determined by the Court. Class Counsel will seek no more than 30% of the Settlement Fund, and the three Class Representatives will seek no more than \$120,000, in total; the Court may award less than these amounts.

How do I get more information?

For more information, including the full Notice, Claim Form, and Settlement Agreement go to www.bigfishgamessettlement.com, contact the settlement administrator at 1-833-942-2822, or call Class Counsel at 1-800-204-1088.

PLEASE DO NOT TELEPHONE THE COURT OR THE COURT CLERK’S OFFICE TO INQUIRE ABOUT THIS SETTLEMENT OR THE CLAIM PROCESS. All questions regarding the Settlement or claims process should be directed to the Settlement Administrator or to Class Counsel.

A cutscene showcases a literal blast from the past.



Characters have a range of options in combat.



Magic lingers in this ancient library.

Solasta: Crown of the Magister

NEED TO KNOW

EXPECT TO PAY
\$35DEVELOPER
Tactical AdventuresPUBLISHER
In-houseLINK
solasta-game.com

SOLASTA: CROWN OF THE MAGISTER

A dice-obsessed adaptation of tabletop Dungeons & Dragons

Most RPGs cite D&D as inspiration, but few directly adapt its rules. In videogames, D&D's dice rolls, spell slots, and long rests can feel restrictive. Even *Baldur's Gate III* tries to make D&D more user-friendly, while indie RPG *Solasta* wears the 5e ruleset as a badge of honor, warts and all.

While it may forever lurk in the shadow of *Baldur's Gate III*, its crunchy, dice-heavy combat is just what I want in a lean adaptation of the tabletop RPG. *Solasta* adapts the 5e rules via the Open Gaming License, which doesn't include the D&D worlds or trademark creatures. We won't be adventuring along the Sword Coast and battling beholders, but we will be creating a custom party of four heroes using familiar races and classes like fighter, rogue, and cleric.

Rolling dice is at the heart of playing D&D, whether it's swinging a sword, intimidating a guard, or leaping across a chasm. Unlike most videogame adaptations of D&D, *Solasta* fully embraces this. You roll digital dice directly on screen, and there are even options for customizing die colors for different attack rolls and damage types.

Combat is where *Solasta* shines. Grid-based levels translate perfectly from tabletop battlemats, and 3D battlefields bring in flying and wall-climbing enemies. It looks a bit like *XCOM*, with a focus on cover, elevation, and positioning.

Even at level one my wizard is invaluable, knocking goblins unconscious

with a single sleep spell, no saving throw required. My favorite thing about *Solasta* is that it rewards my D&D knowledge. A prone, unconscious enemy grants advantage to nearby attackers, meaning I can roll my d20 attack die twice, increasing my odds of hitting them. My rogue applies his extra 1d6 sneak attack damage whenever he has advantage, making this a decisive combo that I was excited to see work so well.

ROLL PLAYING

If you're not a D&D veteran, though, *Solasta* may feel clunky. My dwarf fighter, Garn Redbeard (yes, he has a red beard) can dual wield hand axes as both have the light property, but he'll need to use a bonus action for his off-hand attack. In multiple battles I needed to use one character to provide a light source before attacking with another, as enemies in dim light grant disadvantage, making them much harder to hit.

Solasta insists on including as much of the D&D rulebook as it can. Carrying capacity is annoyingly strict even for characters with a decent amount of strength, forcing me to constantly shuffle items and leave behind extra weapons and armor. This is a packrat's worst nightmare.

Outside of combat, *Solasta* unfortunately doesn't have much to offer in its Early Access form. There's no real avenue for actual role-playing. Dialogue is handled by selecting simple talking points instead of meaningful choices. The world is barren, and sidequests are particularly scarce. The main city is too big and mostly empty, too, with barely any NPCs to give it a sense of life. There are multiple factions, but talking to them is purely transactional. I turn in faction-specific loot to unlock more vendor options, with no personality or politics setting them apart.

It's a shame really, as *Solasta* is a near-perfect D&D 5e combat simulator, with fun, frequent dice rolls and a good handle on travel rules, crafting and rest restrictions. Hardcore D&D fans annoyed by *Baldur's Gate III*'s many liberties may find refuge in the more faithful *Solasta*, but jumping into Early Access puts you in an off-brand D&D world that for now feels like a rough sketch of a full RPG.

Eric Watson

PLAYED IT

Elevation plays a big role in combat.

GRID-BASED LEVELS
TRANSLATE PERFECTLY FROM
TABLETOP BATTLEMATS

Baldur's Gate III



NEED TO KNOW

EXPECT TO PAY
\$60DEVELOPER
Larian StudiosPUBLISHER
In-houseLINK
baldursgate3.gameBALDUR'S
GATE III

It's finally here, but was it worth the wait?

Out now in Early Access, *Baldur's Gate III* feels like it's trying to make up for lost time. There are no humble beginnings here—instead we're treated to psychic squid monsters, interdimensional ships, and jaunts into the Underdark. And that's before even visiting the city itself, which is currently inaccessible.

As the series' new Dungeon Master, Larian Studios wants to make an impression quickly, setting you on a high-stakes adventure with a sense of urgency that can only come from being implanted with a tadpole that's turning you into a mind flyer, one of those aforementioned psychic squid monsters. It's only undermined by my compulsion to stop every few minutes to push people off ledges.

The ability to shove people has made its way over from D&D proper, and with *Baldur's Gate III*'s very tall design, there are plenty of opportunities to use it. Sneaking up on, say, an oblivious gnome and knocking them into the abyss is the most obvious use, but it can also come in handy if you want to push someone into some fire or poison, or line up some enemies for an attack that strikes a row.

PUSH OFF

In my party of four, I have an arsenal of magic missiles, animal companions, curses, and a barbed spear designed to gouge out eyes, but I always try to go for the environmental kills. Agent 47 could really thrive in Faerûn. Unexpected murder weapons are my second choice, if there's no room for accidents. Almost every object can be turned into a weapon in a pinch—one of my first kills was with a skull that I picked up and tossed at a monster. Thanks, Skully.

This is a side of D&D that was previously missing from *Baldur's Gate*—

the creative, messy sandbox. Every confrontation is an opportunity to push your luck and stretch the game's systems like you're negotiating with a DM. Thankfully, Larian's pretty easy-going, letting you use all sorts of questionable strategies as you fight and explore, like stacking crates to get height advantages, or the classic 'plucking explosive barrels from your inventory and tossing them at enemies' gambit from *Original Sin*.

Along with the ability to shove people and throw objects, you can stealthily slink around, make superhuman leaps, dip your weapons in puddles of acid, or ignite them using a torch. These abilities can all be used in turn-based battles at the cost of an action or bonus action, as well as freely when you're messing around in real-time.

Wherever there's the potential for a fight there are torches, scattered objects, barrels filled with volatile substances, ladders, and ledges, giving you many ways to get an advantage. That's if you decide to fight at all. Having a mind flyer tadpole in your brain, it turns out, gives you the power to influence people, at the risk of giving into the alien infection. And depending on how you've developed your character, you might be proficient in the arts of persuasion and intimidation, letting you talk yourself out of trouble.

GOING ROGUE

In an early fight, which I got into after failing to sweet talk some bandits, I was able to send a rock crashing down on top of them, breaking the ground and letting me leap down to the level below, where there were more enemies waiting inside a dungeon that would have been otherwise hard to get into. It's not a trick I've encountered since, but it's a smart introduction to the literal depth of *Baldur's Gate III*'s environments.

My most memorable scrap happened inside a busy goblin camp. I'd talked my way through most of it so I could assassinate the leaders, but the final boss was surrounded by lots of pals. To

PLAYED
IT

**DIP YOUR WEAPONS IN
PUDDLES OF ACID, OR IGNITE
THEM USING A TORCH**

Baldur's Gate III

➤ prepare, I sent my rogue up to the rafters, so when the battle started they were able to rain terror down from above, murdering goblins with sneak attacks. I also managed to push some guards into the spider pit below, where they became a delicious snack for my temporary allies. The spiders then managed to escape, alerting more goblins and adding more meat to the battle. It quickly grew out of control. I didn't make it out alive.

The complexity of these locations is a great boon for battles, but it also makes exploration a more engaging part of the adventure. There are countless ways to get around, going under and over obstacles, or using your skills to uncover hidden routes. The Underdark in particular is bewilderingly elaborate, requiring a lot of stumbling around and leaps of faith as you bound between mushrooms perilously sticking to the side of cliffs. It's a bit laborious, spelunking through the fungal labyrinth, but the journey feels like a proper expedition into the unknown.

Traveling through any inhospitable wilderness is better with friends, and failing that a party of bickering, flirting acquaintances will do. You'll quickly gather up all of the six available companions, each of whom also has a mind flayer tadpole in their head. They're all hot messes, shrouded in secrets, rich in drama, and thirsting for some romance.

Between pithy exchanges and playful ribbing, companions offer helpful bits of insight and keep their eyes out for secrets. Everyone in the party carries their weight, with their skills painting a clearer picture of the world. A character with a proficiency in religion, for instance, might be able to decipher a religious inscription, while a perceptive character is more likely to spot monster tracks or the tell tale signs of a secret door. When first venturing into the Underdark, it was only thanks to one of my companions' knowledge of nature that I was able to deftly avoid walking right up to an exploding mushroom.

Baldur's Gate III is always rolling dice, making passive skill checks to determine if you're going to notice that sliding bookcase right in front of you. These happen automatically, accompanied by the comforting rattle of dice, but dialogue

and active skill checks replicate some of the delight of real tabletop roleplaying by making you manually roll a digital D20.

ROCKS AND ROLLS

The rules and systems are drawn from D&D, but the presentation has a lot in common with modern cinematic RPGs. *Baldur's Gate III* still feels best when played as an isometric RPG, but it benefits greatly from close-up cinematic dialogue and lively cutscenes. The mo-cap animations and detailed character models make the game's denizens more expressive and charismatic, and I'll never tire of watching my dwarf put his fingers to his temple, just like Professor X, when he's rooting around in someone's mind.

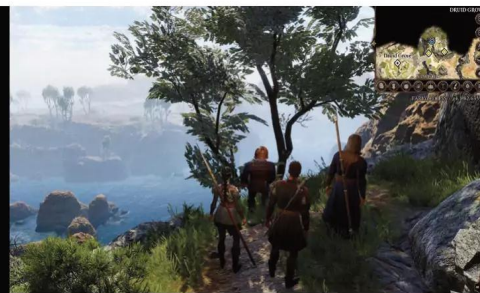
It really is a sumptuous game, but it's also during these cutscenes and conversations where it's most noticeably a work-in-progress. Almost every chat I've had has been visited by a glitch of some kind, whether it's wonky physics making mind flayer tentacles take on a life of their own, characters becoming freakishly contorted, or my entire party choosing to all stand in exactly the same spot.

There are plenty of other rough edges, naturally. I only experienced one crash, but I encountered lots of smaller issues. Larian's started tackling them already, though. There was an update right before launch, and a trio of hotfixes since then. It's expected to be in development for around another year, with more classes, races and other features still in the works. The first act still swallowed me up. It got me the first time I punted a dude off a cliff, and I just didn't stop playing after that. I'm a bit deflated now that my party is gone—the save is no longer compatible—and they'll never reach Baldur's Gate, but we killed cultists, wiped out some goblins, and cruised through the bowels of Faerûn.

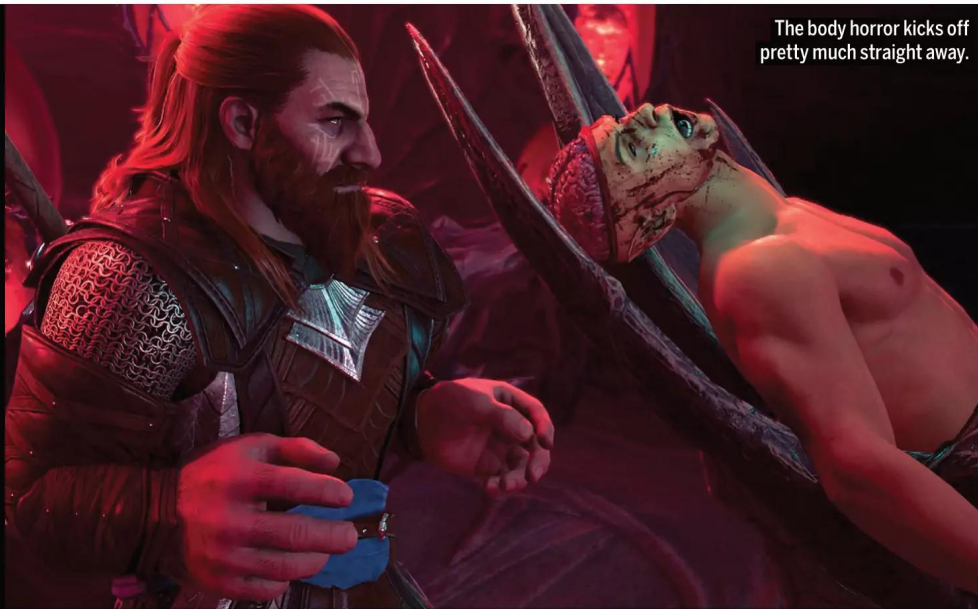
With its turn-based battles, different art style and focus on systemic shenanigans, *Baldur's Gate III* isn't an attempt to resurrect an old series. It's something new that pushes the systems and creative mayhem from *Original Sin* and then combines them with the rules D&D. And they're perfect together.

But should you buy in now? There's a good 25-30 hours of adventuring to be had, full of memorable fights and characters, but you won't be seeing the game at its best. It's already fun, but it's a bit unstable and janky, and more importantly you can't yet make a gnome illusionist, so really what's the point?

Fraser Brown



THERE ARE COUNTLESS WAYS TO GET AROUND, GOING UNDER AND OVER OBSTACLES



The body horror kicks off pretty much straight away.



Sure, I'll just walk under the giant monster tentacle.



Combat's very different from the first two games in the series.



The (current) climactic boss fight is done as an *Ori*-style platforming setpiece.



The game's developer is Chinese—but, at least in the English version, the language is treated as foreign to Haak himself.

NEED TO KNOW

RELEASE
September 16, 2020

DEVELOPER
Blingame

PUBLISHER
Lightning Games

LINK
haakgame.com

HAAK

A mini-Metroidvania with serious style

There aren't many things that have made the past five years a great time to be alive, but for fans of stylish action-platformer Metroidvanias, it's a golden age. *Hollow Knight*, *Dead Cells*, the *Ori* games... all of them weaving their own particular path through the ability-expanding, area-unlocking, backtracking joys of this odd little subgenre.

Haak, as it currently exists, doesn't do this. The path it carves is straight down the middle, doing absolutely everything you'd expect and not a smidgen more. And yet. Even in Early Access, it has the power to anchor me to my desk. I work through the entire thing in two sittings. If I hadn't been forced out the door by necessity, it would have been one.

Partly because everything *Haak* does, it does with style. You're unlikely to be surprised by any of the moveset as it unlocks: a melee slash and charge attack, a dash that's equally handy for dodging and reaching platforms, a grappling hook which doubles as a short-range projectile. But it all connects satisfyingly, and you're pretty much guaranteed to look good doing it.

HAAK & SLASH

Take another peek at that list of games above—prettiness has become a requisite of the genre at this point, and this is no exception. Your character, the titular *Haak*, cuts a heroic silhouette: Two glowing eyes behind a fluttering cape, everything else permanently couched in darkness.

YOUR CHARACTER, THE TITULAR HAAK, CUTS A HEROIC SILHOUETTE

Where the visuals really shine (excuse the pun) are in the game's stuttering neons, the lanterns that swing overhead, the occasional shaft of natural light breaking through. The environments you're exploring are mostly dark, miserable affairs, so these bursts of illumination are very welcome.

It's all stylish enough to elevate what's being portrayed. Your enemies are a standard-issue rogue's gallery of broken-down robots, sentient slimes, and the odd mutant, but they all look cool, and move smoothly. Likewise the setting. Post-apocalyptic wasteland, touches of retro tech, heavy deployment of *Hànzì* characters—these are all stock elements, but they're beautifully realized. Breaking out of a dungeon to be treated to a widescreen backdrop of broken towers, fading gradually into the smog, is like taking your first deep breath of air after a long time cooped up.

Besides, what really matters about the setting is how well it functions as a map to fill in. The game is divided up into discrete locations, each made up of a hundred or so rooms that connect pleasingly, and occasionally unexpectedly.

PLAYED IT

Uncovering a shortcut between spaces you've grown to know independently; realizing you've now got the tool to cross that chasm you

plummeted down ten minutes ago; guessing at which dark corners conceal a breakable wall, a hidden pickup... I'm aware this is just a list of the virtues of Metroidvania games, but I can report that they haven't lost any of their thrill.

Less than a month into Early Access, *Haak* offers a polished version of this find-unlock-revisit loop—for now, in miniature. The version I play consists of two full-size warrens to explore, plus a small city hub and an extended boss fight. More is due to arrive soon, but the most important thing is that I still can't resist seeking out every hidden nook, accruing currency I likely won't get to spend, striving for that '100 percent completed' exit screen. It doesn't especially matter that it's a similar shape to many I've wriggled on in the past—*Haak* has its hook in me now and, whether I come back for each update or wait till I can explore uninterrupted, I'll be back for more.

Alex Spencer



COVER FEATURE

Elite Dangerous: Odyssey





ONE GIANT LEAP

Be the first person to set foot on an alien world in **ELITE DANGEROUS: ODYSSEY**, an expansion that dramatically widens an already vast galaxy.

By Andy Kelly

Elite Dangerous: Odyssey

A

s someone who's played space simulator *Elite Dangerous* for hundreds of hours, it's a strange sensation seeing a blue sky in a game usually dominated by the inky, star-speckled blackness of space. *Odyssey*, a major expansion out next year, introduces planets with thin atmospheres to the game's colossal scale replica of the Milky Way. Better yet, you can touch down with your ship, leave your cockpit, and actually walk on these, and other, worlds.

This is something *Elite Dangerous* players have been dreaming about since the game first surfaced on Kickstarter in 2012. "Some elements of *Odyssey*, in terms of actually walking on planet surfaces, have probably been, at least conceptually, there since the very beginning of the game's development," says Piers Jackson, game director at developer Frontier. "However, as for the actual build-up to having a significant amount of developers working on it, the tail-end of 2019 is when we really started ramping it up."

To prepare for players going walkabout on its planets, Frontier is

overhauling the technology that generates them. "We're doing some pretty significant updates to the planet technology," says Jackson. "The planets are getting a big new refresh. With the new settlements, we're also having to add a whole pile of new gameplay areas across the universe. Some of those will be deployed onto planets without atmospheres that players are currently able to explore, and others will appear on our new thin atmosphere planets."

FINAL FRONTIER

Settlements are one of the most intriguing new additions to *Elite Dangerous*. I've always loved how parts of *Elite* have the feel of a sci-fi Wild West, with rough, lawless



**"YOU FIND THE
ABANDONED
SETTLEMENT HAS
ALREADY BEEN
CLAIMED BY RAIDERS"**

systems on the fringes of the major population centers, and the ability to take on illegal jobs, Han Solo-style. Settlements are extensions of this, being remote, sparsely populated towns in the shady corners of the galaxy. Think Hadley's Hope in *Aliens*, but without the aliens. For now, anyway. Who knows what the Thargoids will get up to in the future.

"So maybe you've taken a mission to reboot a settlement," says Jackson, giving an example of one of how visiting one of these settlements in *Odyssey* might play out. "There's something wrong with the generators and everything is powered down. It's very eerie, none of the civilians or guards are there anymore. You turn up with an objective, or maybe just because you decided to explore there. But when you go to bring the power back online, you find the abandoned settlement has already been claimed by gangs of criminal raiders. They're after the spoils as well, and you have to make the decision to run away, stand your ground, or sneak around in a way that they don't spot you."

This is where *Elite's* new tactical first-person combat will come into play. Running around shooting people might feel like a strange fit for a space sim, but Frontier is making sure the combat falls in line with the rest of the game in terms of simulation and depth. Some of the disciplines you've picked up in ship-to-ship combat will carry over to the new on-foot stuff.

"It is a tactical shooter that we're working on," says Jackson. "It's

Exploring a dusty settlement on the fringes of space.



It's weird seeing a blue sky in an *Elite* game for the first time.



PAINT JOB *A look at Odyssey's evocative concept art*



1 SPACE BAR

It wouldn't be a sci-fi game if it didn't feature a futuristic bar or club. This neon-lit watering hole looks like a good place to pick up not-quite-legal missions.



2 SETTLEMENT

This gives a good idea of the 'Wild West in space' feel Frontier wants its settlements to evoke. These will be dusty, rundown, and probably very dangerous.



3 SECURITY ROOM

This is a security office in one of the galaxy's many star ports, in a populated area of space. Compared to the settlements, law and order reign supreme here.



4 APEX INTERSTELLAR

This is a newly introduced shuttle service that you can use to travel between star ports and settlements without having to fly there in your own ship, for a fee.

different in feel to the ship-based combat. Ship combat can be very protracted and drawn out. But we have taken the core elements, such as the idea that the on-foot characters can have shields. And shields use up energy, so players will have to think about when to deploy them. Certain weapons, like lasers, are good against shields, while kinetic weapons are good against armor and damaging the person underneath.

"The weapon choice you make, on a base level, is very important for the tactics you take into battle. Then you've got factors like your range, the proximity to the target. Do you take a close-range weapon like a pistol that you can draw quickly, or do you have a more long-range approach to the problem? So the tactics are varied depending on how you want to approach each combat encounter."

SHOOTING RANGE

The feel of a first-person shooter is vital to its success, and I ask Jackson what approach Frontier is taking in *Odyssey*. Will it be a heavy, chunky shooter like *Arma*, or more accessible and fast-paced like *Call of Duty*? "It's probably in the middle somewhere," ➤



» he says. “We’re not going for anything in the feeling of an arcade shooter.

“The weapons, if they have weight, will have different draw speeds, different ADS [aiming down sight] speeds. So you will be able to feel the difference with each weapon. We’re not expecting twitch-based gameplay in terms of being able to draw weapons and immediately shoot. But also, it’s not sluggish. There is pace to this. We want a level of drama and excitement to come through in the combat.”

Getting the combat to feel right has been the subject of much iteration and evolution, and this is still ongoing. “We’ve been working on the numbers for months, and continue to tweak them until release. It is a ‘feel’. We calculate a lot of these things as best we can up front, but you have to sit and play it and see how it feels, and what it feels like to be shot *at* as well. It’s not just about you shooting, it’s how the AI behaves towards you, how accurate they are, what their reaction times are.”

Adding further depth to the on-foot combat is the addition of new suits, which can be selected and modified depending on your play style. “These become your role, essentially,” explains Jackson. “They’re defined partly by their armor and shield profiles, but also by the tools they allow you to use.

“The tactical suit is basically our combat suit. That gives you an extra primary weapon, and it has an armor

“IF PLAYERS ARE IN SHIPS, THEY’LL BE ABLE TO FLY OVER SETTLEMENTS AND SHOOT AT PLAYERS”



and shield boost. But it’s trading off against other things. It doesn’t have all the tools other suits have. So depending on how you want to approach a mission or exploration or just all-out combat, you pick your suit and loadout to match.”

STAR WARS

Excitingly, there’s no real separation between ship and on-foot combat. So if you’re having trouble clearing out a settlement, a buddy can swoop in and support you from the air. “We don’t separate the two,” says Jackson. “So if players are in ships, they’ll be able to fly over settlements and shoot at players below, and they’ll be able to shoot back at them.” This should make for dramatic moments and,

almost certainly, some mischief among less noble players.

“With the settlements we’re aiming for a Wild West vibe,” says Jackson. “These are the frontier lands. And while you have planet ports and star ports with large populations, these are smaller occupational areas where people are meeting to work. They might have an industrial or agricultural style to them. The processes and devices you see there will reflect the actual nature of the settlement and its function in the universe.”

Ports, however, are a different story. “The star ports become more of a social hub than an actual piece of mission gameplay,” says Jackson. “You’ll enter into one, usually aboard



FAR LEFT: Firefights will have a focus on tactics over running and gunning.

LEFT: If you're the first to walk on a planet, future visitors will see your name.

a ship, and you can disembark and move into what we loosely call the social space. It has vendors and mission givers, and it's the nexus the game spans out from. In the same way you can land your ship and access all the star port services, we have on-foot equivalents of those."

These spaces retain the hard sci-fi look that defines *Elite*'s world. In footage of the new social hubs I see a few locations not unlike *Mass Effect*'s Citadel, with storefronts, holographic billboards, and people milling around. And looking out the window I see the familiar image of a port, with ships flying around, docking, and undocking. It really hammers home the sheer scale of these structures.

"If other players come to those ports, they can exist in the same area as you," says Jackson. "Otherwise we populate with NPCs. Some of them will be running stalls, selling you goods, or could actually be providing you with missions. Others will just be milling around getting on with their daily lives. But yes, you can definitely meet other players in these places, or meet up with friends if you want to have a multiplayer session. The interiors of the star ports will also have elements that reflect the nature of the system they're in, and that goes down to the advertisements that are on display there."

LIFE AND SOUL

"We're very much aiming to try and bring the NPCs to life," Jackson adds. "The sorts of interactions you can do will be familiar to *Elite* players, in terms of the choices you can make. We handle this through a mix of menus and dialogue systems, but you will actually come face to



TAKING SHAPE *Milestone Elite Dangerous updates*



PLANETARY LANDINGS (2015)

This major update was your first chance to land on alien worlds of the rocky, metal, and ice variety. It also added a new vehicle, the Scarab SRV, which lets you bounce around on planet surfaces.



THE GUARDIANS (2016)

This update included the ability to fit your ship with passenger modules of various sizes, allowing you to ferry people around the galaxy for profit. Ship-launched fighters were also introduced here.



THE ENGINEERS (2016)

For fans of tweaking their ship's performance, this update was very welcome. The titular engineers are a cast of eccentric characters who can modify your hardware to seriously exceed its baseline performance.



THE COMMANDERS (2017)

In this commanders could finally customize their appearance with the introduction of the Holo-Me avatar creator. The update also added multicrew co-op to the game and a camera suite for taking screenshots.



THE RETURN (2017)

The *Elite* universe's feared alien threat, the Thargoids, began to make their presence more widely known in this update. This included encounters with their bio-organic ships and new anti-Thargoid weapons and modules.



FLEET CARRIERS (2019)

With this players were able to buy and operate the giant fleet ships that previously could only be viewed longingly from afar. These ships act as mobile star ports and have huge jump ranges, but cost a lot to operate.

COVER FEATURE

Elite Dangerous: Odyssey

» face with these characters, and a large amount of the dialogue will be voiced. We can elaborate in a lot more detail in mission text, but yes, these characters are there, and they will interact with you.”

The new star ports will also offer a choice of illegal and legal missions, depending on how law-abiding you want to be. When dealing with scumbags, you’ll be able to squeeze them for more credits. “We have an on-foot equivalent of the bulletin board for picking up missions. But we also have physical mission givers that exist in the ports. The one real difference is that, because you’re meeting face to face, you can actually negotiate for an improved payment.”

Some missions will involve traveling to other systems, but you don’t have to take your ship thanks to Apex Interstellar. “This is a new service that allows you to book a shuttle, and the shuttle will take you between ports and settlements,” says Jackson. “It provides a mechanism for players, particularly new players, to move around easily within

civilized areas of space. We’re also facilitating physical multicrew here. So if you are part of someone’s wing, you’ll be able to board their ship, if they allow you to, and they can fly you from one location to another.”

PEACEFUL PROTEST

While combat is a new feature, there are still ways to enjoy the on-foot stuff without firing a laser. “There are two big ones for our explorers out there. For instance, we now give players a chance to earn a first footfall accolade. If you go off into the black and land somewhere, and you are the first player to set foot on that planet, that will be announced to you right there and then, and will be marked up against your name for other visitors.”

You’ll also be able to use a new tool to scan any life you encounter on the new planets. “We’re giving players the opportunity to track down and scan organic lifeforms,” says Jackson. “You can retrieve sampling information and bring that back into the human bubble and trade it.” Right now this seems to be

OUT OF THIS WORLD

Odyssey’s planets will look better than ever

The tech used to generate the planets is being improved in *Odyssey*. Terrain will be more realistic with deep canyons and otherworldly icy landscapes to explore on foot. Ice and rock planets will be given the most obvious facelift, and things will look detailed in the distance as well as up close.

**“WE’RE NOT TAKING
ANYTHING AWAY FROM
ELITE DANGEROUS OR
HORIZONS AS IT
CURRENTLY STANDS”**





ABOVE: Combat suits have positive and negative traits to keep things balanced.

BOTTOM LEFT: One of the new social hubs, where you can pick up missions from NPCs.



plants and other flora, but I wouldn't be surprised if later updates added more interesting wildlife. That isn't confirmed, but it seems to be the direction Frontier is heading in.

But don't worry: If you're a player who'd rather not leave the safety of your cockpit, you'll never have to. "We're not taking anything away from *Elite Dangerous* or *Horizons* as it currently stands," says Jackson. "If you want to continue playing the game the way you do now, it will be entirely possible to do so. But this is a massive update. Being able to get out of your ship and walk around, interacting with settlements, performing missions, engaging in combat. We're adding a lot to the *Elite* universe."

SHIP SHAPE

"The ship is still really important, but we now have an added level of importance on the player character," he adds. "And that comes in two flavors. One is the gameplay element, which is what suit am I currently wearing and what equipment am I carrying with it, and how do I use that to express myself in the game. And then there's how

you represent yourself in the universe to other commanders you encounter."

A big part of *Elite* is, of course, showing off. In the same way you can kit out your ships with cosmetics, you can do so with your suits. This will give groups of like-minded players, whether they're deep space explorers, bounty hunters, or communities like the Fuel Rats, a way to adopt a uniform. "We allow you to apply cosmetics over the top of your suit, in the same way we allow ship kits to be applied. So you can express yourself however you want."

Frontier hasn't worked on an FPS before, so this is new territory for them as a collective—but not as individuals. "While Frontier doesn't have a vast amount of experience in first-person games, a large number of the *Odyssey* dev team have," says Jackson. "There are people, including myself, who have worked on first-person games, and we're all bringing our expertise to the table."

Odyssey is shaping up to be the most dramatic, game-changing *Elite Dangerous* update yet; even bigger than *Horizons*, which added the first iteration of planetary landings. Being able to disembark and stretch your legs, fighting, exploring, and making your mark on uncharted worlds is the stuff of science fiction dreams. When you first make footprints in the alien dirt on some faraway planet, you'll know you're the first person in the world—in the *universe*—to do so, and that'll be a truly special feeling. ■

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INFINITE AMMO

How '90s shooters escaped their certain
Doom with an indie retro revival.

By Alex Spencer

Infinite Ammo

I

f you tuned into 3D Realms' Twitch channel this September, you could be forgiven for thinking you were peering through a portal into 1997. The publisher held the inaugural Realms Deep event, two days of lightning-fast frags and chunky gibbs, weapon sprites, and the kind of character models where you could count the polygons by eye, all with a soundtrack that can only be described as 'pumping'.

Dave Oshry, CEO of New Blood Interactive, describes it as "our own E3 for retro shooters". It's a party for developers who believe the first-person shooter was perfected by the turn of the millennium and, rejecting all those heretical texts which followed, have spent the past half-decade striving to resurrect the look and feel of the '90s golden age. This might sound like a regressive way of making games—and it certainly can be—but this movement has produced some of the highest-rated games on Steam. And you can trace almost its entire history back to one unlikely game: *Rise of the Triad*.

It was the remake of a 1995 shooter that Frederik Schreiber, now VP of 3D Realms, admits was "an obscure, kind of unknown game to the masses". And he should know—in 2013, along with Oshry, Schreiber was one of the game's directors. The

remake isn't much better remembered, but it happened to mark the beginning of a broader revival, the names getting bigger with each release: *Shadow Warrior*, *Wolfenstein: The New Order*, *Doom*.

The release led—via a few cancelled projects and a lot of *Duke Nukem*-related lawsuits—to acquiring 3D Realms, the publisher behind so many of the shooters that defined his childhood, and reviving its reputation with games like *Wrath: Aeon of Ruin* and *Ion Maiden*, the first in two decades made via the Build engine.

For Oshry, it was the reason David Szymanski, a fan of the remake, got in touch to share a prototype he'd been working on. Oshry fired up the one-room demo to check it out. "It was all there: The movement, the shooting, the interactivity," he remembers. "You could flush the toilet!" This was *Dusk*, a *Quake*-meets-*Doom* horror shooter that's generally considered a high watermark of this revival—and it transformed Oshry's company, New Blood, into a purveyor of retro-flavored delights.

RESPAWN

These two companies are the cornerstones of the indie retro shooter revival, but they're far from the total of it. I could rattle off names (*Prodeus*, *Hrot*, *Hellbound*) like rounds from a chaingun, but the more important point here is: Why, 20 years after its heyday, has this style of games returned?

"For years before I'd been frustrated no one was making games like this," says Szymanski. He'd grown up with *Doom* and *Quake*, and modern shooters simply weren't scratching the same itch. I hear a



TOP: *Maximum Action's* Woo-'em-up follows in the tradition of the legendary 'Action' mods for *Half-Life* and *Quake II*.

RIGHT: *Hellscreen* describes itself as 'Giger-esque', which as we all know means 'monsters that looks like naughty bits'.

CANON FODDER

The holy texts of the retro shooter movement



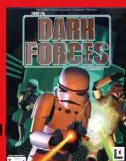
WOLFENSTEIN 3D May 1992
The 'granddad who fought in the war' of the retro-shooter family tree.



DOOM Dec 1993
As the original Star Wars is to blockbusters, *Doom* is to the FPS.



HERETIC Mar 1994
War, tick. Sci-fi, tick. *Heretic* added the third shooter setting: Fantasy.



STAR WARS: DARK FORCES Feb 1995
Doom is still the Star Wars of first-person shooters.



RISE OF THE TRIAD Feb 1995
If you order 'one length of '90s shooter', this is what arrives.



HEXEN Oct 1995
Also known as 'Beyond *Heretic*'. But, like, not that far beyond.



DUKE NUKEM 3D Jan 1996
Enter, the Build engine. And some of the most pokable levels of all time.

similar story from Thom Glunt, designer of another early outrunner, *Strafe*. “There were only a few throwback FPS games at that time,” Glunt says—and, while they borrowed the fast gunplay of the classics, all these shooters stuck to a modern graphical style. “I personally hated that. I wanted those beautiful, crunchy, low-poly vibes, and it felt like many devs were scared of it or didn’t see the beauty.”

That’s not the case today. If you’ve got a hankering for the early 3D of *Quake* or the spritely majesty of Build engine games like *Blood*, you’ll find multiple titles catering to your needs. Think of it as the successor to the 8-bit aesthetic that’s ruled over indie games for the past decade, with similar benefits for a smaller development team. But that’s not the whole story. “We don’t see rendering techniques as mere steps in an inevitable linear progression,” says Jon Marshall, one third of *Devil Daggers* creator Sorath. “They can be

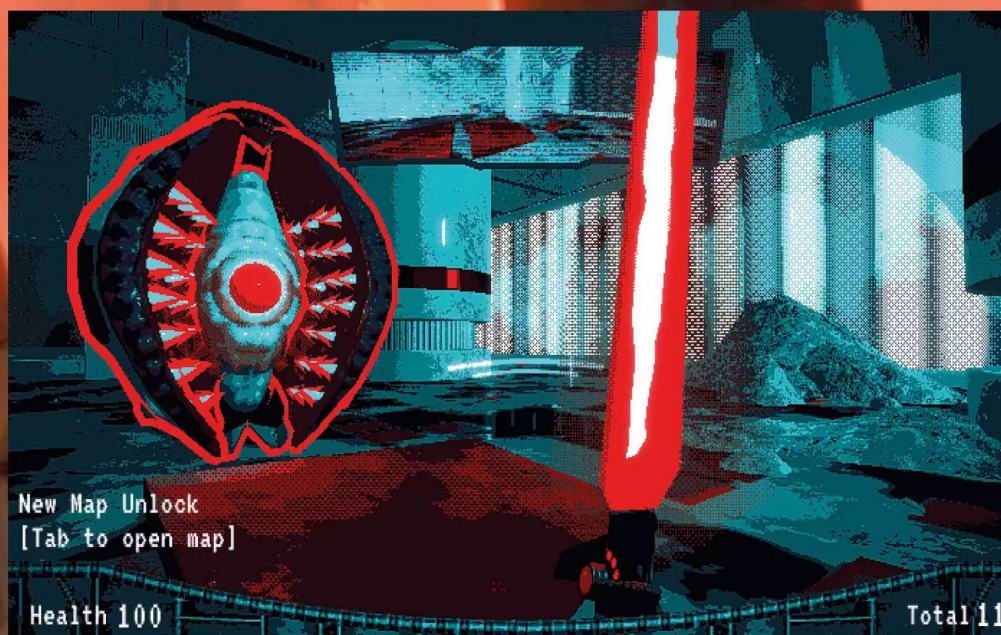
“I SPENT A LOT OF TIME STUDYING WHAT MAKES DOOM’S COMBAT SO MUCH FUN”

valid tools in their own right, just as black-and-white film photography or hand-drawn animation retain their own quality distinct from later digital color photography or CGI.”

SECRET AGENCY

Devil Daggers strips the retro shooter back to its barest essentials. The world recedes into darkness a few feet from your face, the shadows spewing floods of enemies. You have a single weapon to repel them: Your hand, which for some unexplained reason can shoot energy. You hold on for as long as you can—each decimal point of a second hard-fought—and then try to beat that score. This throws a stark spotlight on the simple feel of moving and shooting, something all the developers I speak to are trying to recapture. “I spent a lot of time studying what makes *Doom*’s combat so much fun,” Szymanski says of *Dusk*.

But *Devil Daggers* also cuts away another treasured aspects of these games: The level design. The classic



QUAKE
June 1996
Proper 3D! Physics! Rocket jumps! A literal leap forward for shooters.



BLOOD
May 1997
Another Build game, with a title that definitely gets straight to the point.



CHASM: THE RIFT
Sep 1997
Szymanski cites this deep cut as the main influence on *Dusk*.



SHADOW WARRIOR
Sep 1997
This is mainly remembered for being a bit saucy.



UNREAL
May 1998
Good game, better engine—as shown by everything made with it.



SIN
Nov 1998
Pushed AI forward, had the misfortune of coming out ten days before...



HALF-LIFE
Nov 1998
The end of an era, but certainly the beginning of a whole new one.

Infinite Ammo

» '90s approach, Szymanski says, was using “shortcuts and backtracking to make the level itself an experience, and not just a series of environmental setpieces in what effectively amounts to a hallway”. *Dusk*’s levels are a great example of the form, looping around and inside of themselves, as if artist M C Escher was set loose with *Doom*’s modding tools.

And that’s without mentioning the secrets. In *Dusk* or *Ion Fury*, it’s not just about skidding around like you’ve got an Acme-equipped coyote on your tail. To get the best stuff, you’ll need to slow down, study the wall textures for a telltale crack or discoloration. Tap the use button, and a panel might slide away, putting a new weapon in your hands, or even leading to an entire secret level.

KNEE-DEEP

Coming from modern shooters, the thing that stands out most is the refreshing lack of interest in imitating reality. Maps are explicitly death traps, the level designer as cackling Bond villain, with a conveyor belt of enemies to headshot. They don’t all take it quite as far as *Devil Daggers*, but these games are essentially the first-person shooter with everything removed but the engine.

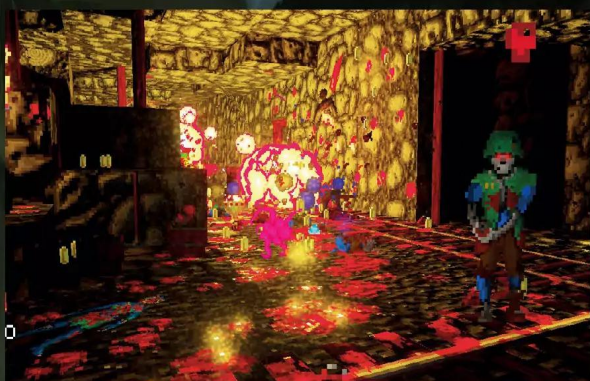
The rest “no cutscenes, carry all the weapons you want, ludicrous gibbs, run really fast, no tutorials” as Oshry effortlessly rattles off for me, before adding “monster closets and colored keys and doors everywhere” too—that’s all just optional set dressing, really. Oshry understands the value of these nostalgic signifiers,

and New Blood’s marketing leans heavily on it.

But nostalgia is a funny thing. In 2020 especially, it’s difficult not to indulge in the idea that the past is a warm and safe place for everybody. Which, obviously, is some way from the truth. By shutting out more recent work, you’re likely to narrow the range of voices you hear—something that has certainly plagued *Ion Fury*, with its post-launch dithering over whether to remove two homophobic jokes of the playground variety, the sort you’d expect from the original *Duke Nukem* games. But putting that aside, if nostalgia becomes your only guiding principle, it’s unlikely to aid creativity much. After all, why shoot for the future when the past is waiting?



**“I FELT THAT IF WE’D HAVE MADE A
QUAKE CLONE, THEN WHY WOULD
WE ASK FOR MONEY FOR IT?”**



Thankfully, everyone I speak to agrees. “I felt that if we’d have made a *Quake* clone, then why would we ask for money for it? It should have just been a *Quake* mod,” Glunt says of *Strafe*. Even Schreiber, who approaches these old games like a watchmaker, a loupe held up to their inner workings, replicating every technical limitations perfectly, is firm that “all the things that didn’t age well, we’re cutting out”.

Oshry—who insists he’s trying to stop putting out retro shooters, only to have something new and shiny catch his eye—says you can’t just copy what came before, whether that was in 1993 or 2017. “It has to be something different.” Take *Ultrakill*, the studio’s latest. There’s a dash of *Devil May Cry* in its wall jumps and style meter, but more important is the idea of taking all that blood and

TOP: *Blood* is one of the big retro shooter signifiers—but *Ultrakill* makes smart use of it.

ABOVE: The lurid retro-shooter stylings of *Nightmare Reaper*.

mechanizing it, so that the only way to heal is to bathe in the showering arteries of a dispatched foe.

Every game in this revival—at least, all the ones worth playing—conceals an idea like this, its own little twist on the formula. “I think that that’s the beauty of this retro shooter wave,” Schreiber says. “All of the games that come out, they have different aesthetics, they have different goals, they all have different ways of making their games.”

GAME OVER?

It’s pretty undeniable that Oshry, Schreiber, and comrades have won—we’re no longer short on the old-school thrills they felt deprived of back in the early 2010s. Does that mean their audience has been sated? “All trends move on,” Oshry shrugs. “I’ve ruffled some feathers by saying, if you’re starting work on a retro shooter now, you’re probably two years too late.”

Schreiber describes 3D Realms’ recent output as an alternate timeline, moving through the ’90s on fast forward—and it’s rapidly closing in that millennial boundary. “Where we are now with *Graven* is kind of

the limit,” he says. “In terms of visual fidelity, the problem with making an early 2000s game is that, for the majority of people, it will look like a very ugly modern game, rather than a really pretty old game. We can always go back in time, but that’s the limit.”

The answer is diversification. 3D Realms is also publishing *Ghostrunner*, which applies the speed of a retro shooter to create something entirely its own. “We’re going to do more AAA indie stuff like that,” Schreiber says, though admitting they’re more expensive. For New Blood, meanwhile, retro definitely remains its niche, but that reaches well beyond shooters. “All the cool kids are making retro immersive sims these days,” Oshry says, a nod to the studio’s upcoming *Thief*-a-like *Gloomwood*.

But the retro shooter party’s not over just yet. Many of the games mentioned here aren’t even out yet, Schreiber intends to bring Realms Deep back for another year, and you get the impression that Oshry’s efforts to stop making these games will fail. And if it does all end, well, we’ll see you back here in another 20 years for the next revival. ■



YOUNG BLOOD

The next wave of retro shooters making their way to PC



GRAVEN

Release: 2021

Announced at Realms Deep, this is 3D Realms’ foray into the Unreal engine (the first one, natch) and asks the bold question: “What if *Hexen II* was good, actually?”



HELLSCREEN

Release: Sep 2021

The key innovations here: a HUD-mounted rear view mirror and an incredible dual-tone dithering effect that has the approval of *Obra Dinn*’s Lucas Pope.



HROT

Release: ‘Soon’

Recommended by Dusk’s David Szymanski, this shooter is deeply brown and incredibly Soviet. “And also, here’s like a horse with a gas mask that is on fire,” Szymanski adds.



FALLEN ACES

Release: ‘Soon’™

New Blood’s next retro shooter venture—once again, Oshry couldn’t help himself—is a cartoon noir where you’re switching between Tommy Guns, lead pipes and fists.



CORE DECAY

Release: TBC

Another game leading the indie immersive-sim charge, promising 100 cybernetic implants and existentialism, this one looks like the *Deus Ex* to *Gloomwood*’s *Thief*.

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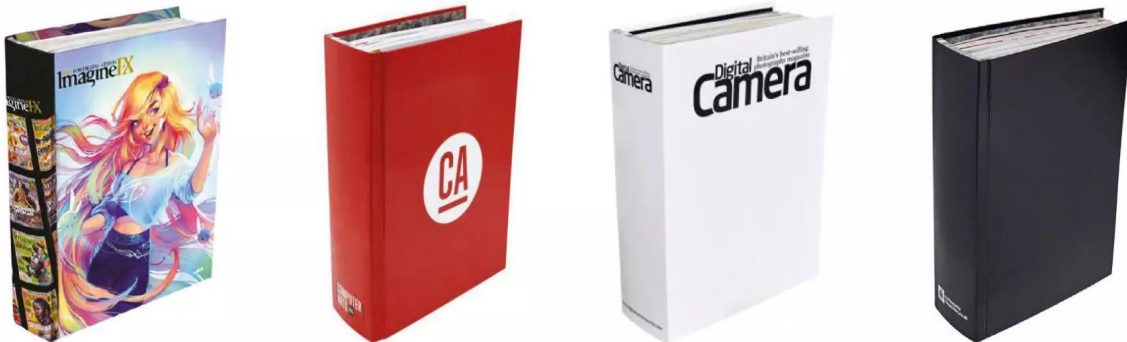
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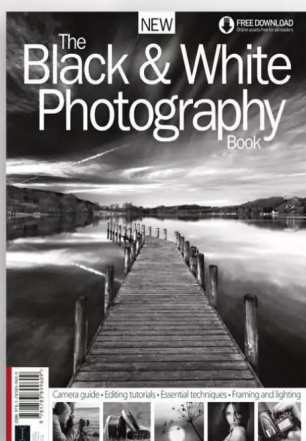
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A NEW YOKE

Exhilarating dogfights make **STAR WARS: SQUADRONS** a worthy heir to *X-Wing* vs *TIE Fighter*. By Wes Fenlon

Hot damn, I love the A-Wing. Until *Star Wars: Squadrons*, the speed demon of the Rebellion was never my favorite ship. *Rogue Squadron* made me an X-Wing diehard, and even when I first played *Star Wars: Squadrons* on a controller, I didn't appreciate the joy of piloting what's basically an aluminum foil cockpit attached to an oversized engine. But when I hooked up the HOTAS, the A-Wing made me forget how much *Rise of Skywalker* had drained my enthusiasm for all things Star Wars.

Star Wars: Squadrons succeeds where it's most important. It's a thrill to pilot these ships a hair's breadth above the surface of a Star Destroyer and through stunning nebulae more vivid than I could've possibly imagined while playing *TIE Fighter* in the late 1990s. The campaign, which took me about ten hours to complete on the default difficulty, never really surprises, but it does manage to accomplish something noteworthy: This feels like being in Star Wars in a way no game has in a long, long time.

The flying is exactly what I hoped for, with enough nuance to let skilled pilots excel. The central system is power management, just like in the classic *X-Wing* games. Over the course of the campaign I started to get a feel for exactly when to cut the throttle to make a tight turn, when to flick all my power to weapons to lay on the damage, and how to survive by focusing my shields to the rear to

take a few more hits from an enemy blasting away at my tail.

The campaign teaches you most of these advanced moves as a primer for multiplayer, which is refreshingly simple in 2020. There's a progression system, but no battle pass or premium currency—you play multiplayer matches, rank up, and use your rewards to unlock cosmetics and additional ship components. That's it.

Those unlocks are nice, but I mostly want to keep playing *Star Wars: Squadrons* because it's so fun to fly.

This feels like being in Star Wars in a way no game has in a long time

SAVE YOUR BATTLESHIP

If *Squadrons*' singleplayer is drinking a nice warm cup of Star Wars tea, its 5v5 multiplayer against human opponents is slamming a Red Bull. I found myself gripping my joystick tightly and leaning in, far more focused on the action.

Squadrons keeps multiplayer lean with only two modes: Dogfights (aka

NEED TO KNOW

WHAT IS IT?
Space dogfighting action in a galaxy far, far away

EXPECT TO PAY
\$40

DEVELOPER
EA Motive

PUBLISHER
EA

REVIEWED ON
GTX 1080, Intel i7-7700K, 16GB RAM

MULTIPLAYER
Yes

LINK
ea.com/games/starwars/squadrons

deathmatch), and Fleet Battles, which are tug-of-war contests between two enemy capital ships. If you destroy enough of the enemy team's fighters you can push forward to attack their capital ships in stages. Fleet Battles are great play spaces because they demand some strategy, but still allow for plenty of flexibility—they provide structure to dogfights that give moment-to-moment victories more meaning.

They also force you to make decisions more complex than picking the fastest ship. You can pilot a heavy bomber and focus on dealing big damage to those capital ships, but you'll need teammates in nimbler craft, like the A-Wing or TIE Interceptor, to take down enemy fighters. Imperial teams really need a support ship, which can provide them temporary shields to stick it out in longer battles. Ship customization plays into this well: Ion cannons can take down shields quicker than lasers, while certain high damage missiles are ideal against capital ships but can only be fired from long range.

With random players there's only so much coordination you can do, but I've played enough of Fleet Battles to feel confident that it's a mode people will keep developing strategies and tricks for, with Discord groups planning out their exact ship selections and arsenals to complement each other like MOBA players before a match.

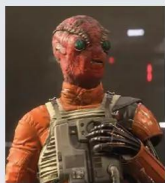
When I went into dogfights with a full team of PC Gamer editors, we got better at pinging targets and shooting enemies off one another's tails. That experience amplified the fun of simply juking an enemy or nailing a TIE Fighter with a perfect laser blast—which is saying something, because the core flying in *Squadrons* is already exhilarating. When I weave through the cracks of an asteroid field to dodge a torpedo, it's hard not to let out a Han Solo whoop.

Playing in VR makes that feeling even more intense, and even gives you some advantages. You can look

SQUAD GOALS Meet our favorite fresh faces in *Star Wars: Squadrons*



KEO VENZEE
Chipper and Force sensitive, Keo is the heart of Vanguard Squadron and I want to be friends.



GUNNY
A Star Wars alien with a southern drawl? Gunny has personality to spare, y'all.



FRISK
Remember Bossk, the bounty hunter who shows up in Empire? Frisk is better-developed.



SHEN
The deadpan one. Like a Mandalorian, he'll never take off his helmet to show his scarred face.



ARDO BARADAI
Finally, a Mon Calamari character other than Ackbar! Great at mission briefings.

The Republic pilots have some stellar character designs.



There's no shame in asking for directions when you're lost in a nebula.



Not now, boss, I'm killing Rebels!

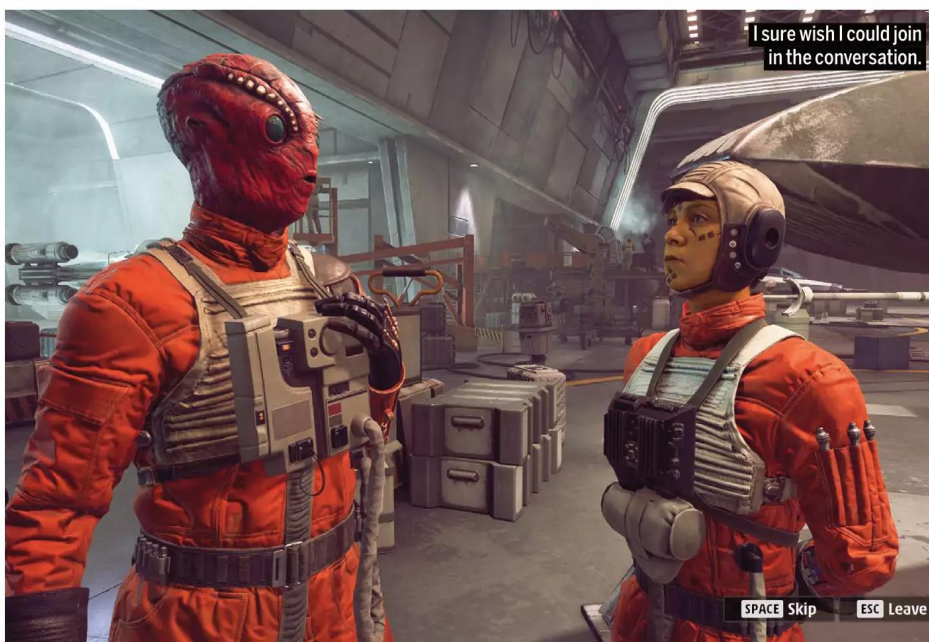
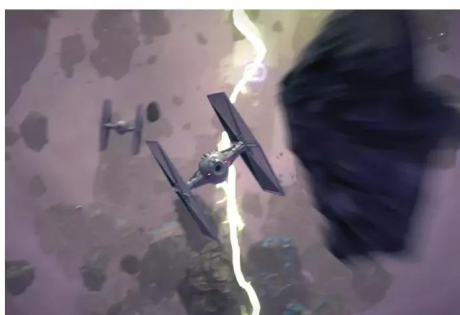


Titan Squad are a cool bunch, but not as fun as the Republic pilots.



I've blown up so many Star Destroyers, they're not so fearsome anymore.

Star Wars: Squadrons



» all around your cockpit and stare straight up to see the ship you've been flying in circles trying to catch. I found it overwhelming (and nauseating, on the Oculus Quest) to pitch and roll my ship through these dogfights, and think it's a better fit for campaign's staged battles than the mad pace of multiplayer. And if you don't care at all about multiplayer, there's still a lot to love here. I was initially worried that the campaign would just be a glorified tutorial, but it's both more fun and more interesting than I expected.

STAR TOURS

It helps tremendously that this game is so scenic. It takes full advantage of scale to make you feel tiny in your cockpit. I kept trying to grab screenshots of enormous planetary backdrops, the dockyards and space stations and debris fields that anchor each map and keep you from getting lost in the void of space. *Squadrons* also runs flawlessly on my PC: At over 144 fps on ultra settings on an i7-7700K and a GTX 1080 (OK, occasionally it dipped into the 130s. I can live with that).

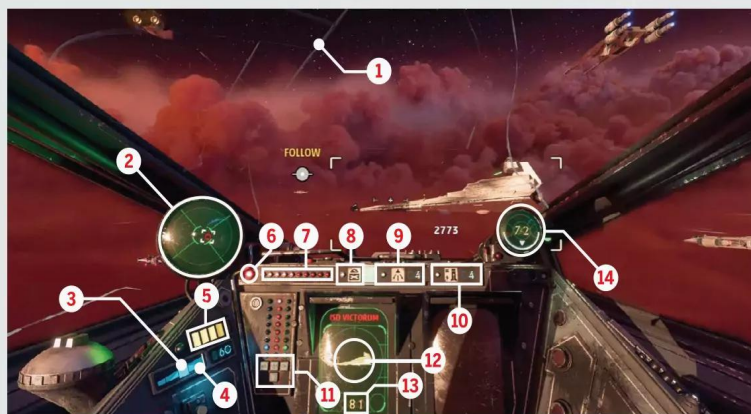
Even when the campaign missions aren't especially complex, the setting makes up for it. The moments that felt the most thrillingly Star Wars weren't scripted into the story, but of my own making—like flying through the husk of an old cruiser to shake a missile, then coming back out behind an enemy TIE and shooting it to bits.

The campaign recognizes that the fun of *Squadrons* mostly lies in being at the controls, successfully tossing power to engines and making a corkscrew turn to get behind the ship that was just on your tail. But it does end up feeling all a bit routine by the end. Objectives don't really change mid-mission. You set out to do X, you do X, and that's a wrap. There are a few rare secondary objectives, but they don't add different ways to accomplish a mission or secrets to uncover.

Star Wars: Squadrons is a game with memorable moments rather than memorable missions. The story never guided me through something as thrilling and unforgettable as *Titanfall 2*'s Effect and Cause, for example, but I'll remember piloting an X-Wing upside-down along a Star

FLIGHT SCHOOL

Before you take the controls, know what each button does



- 1 Hull damage
- 2 Space radar
- 3 Throttle sweet spot for turning
- 4 Throttle
- 5 Boost meter
- 6 Light for fully-powered lasers
- 7 Laser charge
- 8 Repair kit cooldown
- 9 Countermeasures
- 10 Missile ammo
- 11 Power management
- 12 Current target
- 13 Target's health
- 14 Shields fully focused to the rear

Destroyer's hull more vividly than any individual shootout in that game.

The story, too, lacks the depth to be truly memorable. It alternates between the New Republic and Imperial perspectives, putting you in the boots of the new fifth pilot in the Republic's Vanguard Squadron and the Empire's Titan Squadron. Vanguard's commander is an Imperial defector who led Titan before the destruction of Alderaan made him realize they were the baddies. The setup makes this story

more personal than political, as Titan's new leader, Terisa Kerrill, feels betrayed by her former mentor, and wants to make him suffer. Turns out fascists hold a grudge.

Squadrons never does much with its

characters, though, and that's a real shame, because I wanted to be friends with every alien in sight. Their designs are imaginative and detailed, putting Star Wars species we rarely see front and center. But *Squadrons* seems more concerned with adding your commanders and fellow pilots to the canon than giving them any growth or resolution.

There's so much potential here. Take Gunny, squad leader of Vanguard, who's been a pilot so long she fought in the Clone Wars. She tells the story of being shot down and having to take off her own arm to escape the wreckage and capture. Or Shen, a very one-note (but really entertaining) TIE pilot who's been wounded in so many battles he never takes off his helmet to unveil the

scarred face beneath. I enjoyed getting to know these characters at first, but grew bored of the chats between missions when it was clear none of them would really change throughout the campaign.

There are zero dialogue options, decisions, or ways to express or shape your own pilot's role in this story. *Squadrons* made me realize how meaningful even simple dialogue options are for bonding with your crew in games like *Mass Effect*. Unfortunately this is a shallow reflection of that experience.

At one point smuggler-turned-Rebel-pilot Frisk, a lizardy Trandoshan, mentions playing sabacc, the Star Wars version of poker. I spent the rest of the game imagining an alternate universe where *Squadrons* had a sabacc minigame and let me play cards like in *Star Trek: TNG*. If *Squadrons* is a success, then I hope the sequel has the budget to be more ambitious with its singleplayer mode. I feel like I want more to do between missions than listen to monologues.

In the cockpit, though, this is probably the best a *Star Wars* flight game has ever felt, and that's a real feat for the spiritual successor to some truly beloved games. It deserves to be the start of a new era of *Star Wars* flight sims with at least a big enough budget to fit a B-Wing into the next one, hopefully. ■

PC GAMER VERDICT

Star Wars: Squadrons delivers with great combat, even when its campaign doesn't live up to its full potential.

83



FEARLESS

AMNESIA: REBIRTH is an unforgettable follow-up to a horror classic. *By Leana Hafer*

This direct follow-up *Amnesia: The Dark Descent* had enormous expectations to meet. Judging by the number of times my housemates heard me shout at it, I'd say that *Amnesia: Rebirth* succeeded. Navigating cramped corridors with no way to directly combat the abominations pursuing you may not be as novel today as it was a decade ago, but it's as terrifying as ever, and *Rebirth* takes the series to even more disturbing places.

It's almost impossible to say anything specific about the plot, characters, or locations without spoiling the expertly-crafted story. Here are just the basic details, then: The beleaguered protagonist Tasi Trianon, brought to life with a superb performance by Alix Wilton Regan, finds herself marooned in the Algerian desert in 1937 with, appropriately enough, amnesia. Trekking through a huge variety of dark and foreboding locales, finding notes and photographs to piece together her past, while evading nightmare horrors using stealth and speed, all feel very familiar. But the stakes are higher and the journey is weirder. If *The Dark Descent* scratched the surface of the *Amnesia* mythos and *A Machine for Pigs* gave us a glimpse below the skin, *Rebirth* takes us all the way into its eldritch heart.

This is very much a direct follow-up to *The Dark Descent*, both in terms of story and game

mechanics. If you had unanswered questions about previous protagonist Daniel, or Alexander von Brennenburg, or the mysterious Shadow, chances are some diligent exploration will find you the answers

you seek. However, *Rebirth* also creates new questions along the way. It mainly distinguishes itself by how far it gets to run with its predecessor's themes. In a world where inflicting

anguish on others can give you actual magical powers, what would be the implications of doing so on an unthinkable scale? The allusions to real 20th century history are a little on the nose, but the presentation is superb so it never comes across as preachy.

LONG SHADOW

Given how much bigger and more ambitious the story is, I was disappointed that the basic gameplay is almost entirely unchanged from *The Dark Descent*. The concept of

Frictional has mastered the art of building tension using imagery

DON'T FORGET *A quick catch up on the Amnesia mythos*



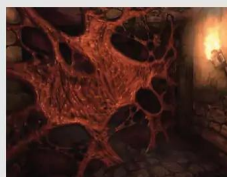
VITAE

An alchemical substance produced by causing mental and physical anguish in higher-order animals, including humans.



ORBS

Poorly-understood artifacts of cosmic power that may have the ability to enable communication or travel between realities.



THE SHADOW

A hostile force that pursues any who misuse the power of the orbs. It manifests as a fleshy mass that infects everything around it.

NEED TO KNOW

WHAT IS IT?

A first-person horror exploration game and sequel to *Amnesia: The Dark Descent*

EXPECT TO PAY
\$30

DEVELOPER
Frictional Games

PUBLISHER
In-house

REVIEWED ON
AMD Ryzen 7 3700X,
GeForce RTX 2060
Super, 16 GB RAM, SSD

MULTIPLAYER
No

LINK
amnesia rebirth.com

'sanity' has been replaced with 'fear', reflecting a more modern and thoughtful understanding of mental illness. But it's just a re-labelling of the idea that if you hang out in the dark or look at disturbing scenes or creatures for too long, you'll eventually lose control of your faculties. You'll be scrounging for matches, which can be used to light torches and candles, and eventually oil for your portable lantern. The very limited amount of each you can carry serves to build tension, but both are abundant enough that if you're tenacious about exploration and stingy with your resources, you'll almost never run out. The fleshy, chittering monsters often lurking just at the edges of your sight are visually horrifying, using clever design, animation, and sound to get your hairs standing on end. But their behavior doesn't present any new surprises, and stealth still feels as clunky and random as it did in the previous *Amnesia* games.

Even so, Frictional has mastered the art of building tension using imagery, music, level design, and sound mixing. Parts of the in-universe story even spell out how they do this in a way that is both openly self-referential and self-congratulatory—it comes close to breaking the fourth wall, but it feels earned. The breathtaking story payoffs are well worth putting yourself through the ordeal, too. Their ability to marry deeply personal, relatable fears with cosmic horror is nearly unparalleled in games. While mechanically rusty, *Amnesia: Rebirth* deserves to go down as one of the most effective and mind-bending horror games of our generation, just like its predecessor. See you on the other side. ■

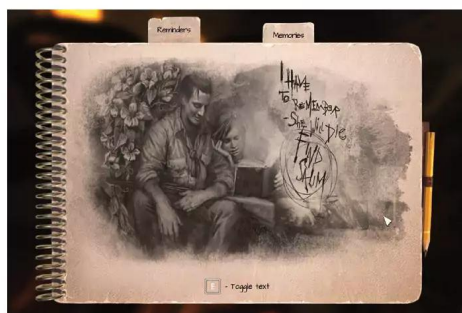
PC GAMER

VERDICT

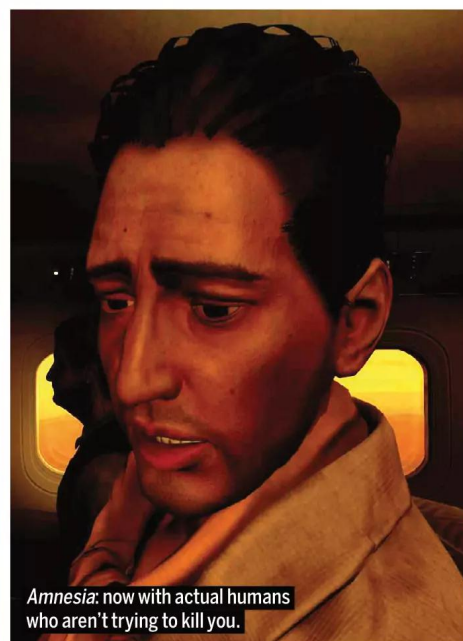
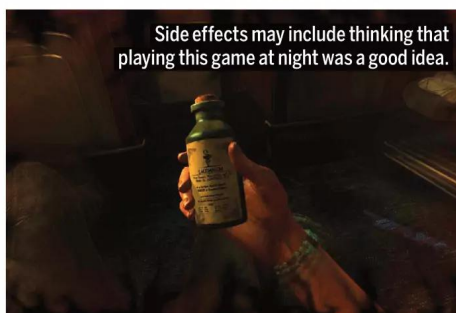
Amnesia: Rebirth is a brilliantly told tale of terror worthy of the series, even if the ride is a little old and clunky.

91

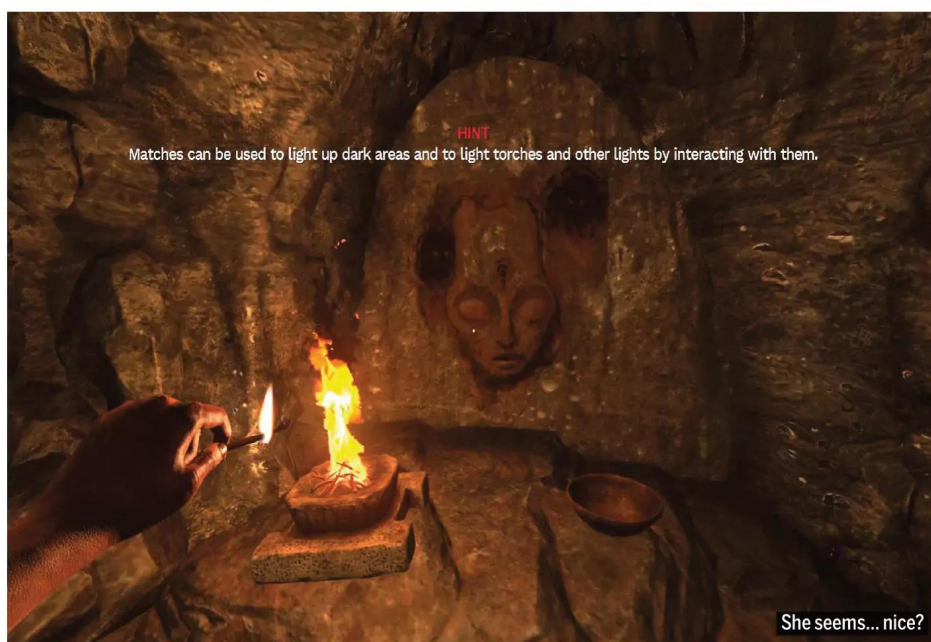
I feel like this is symbolic of something, and I really don't like it.



Side effects may include thinking that playing this game at night was a good idea.



Amnesia: now with actual humans who aren't trying to kill you.



She seems... nice?



Even the creepy discarded dolls are fully physics enabled.

SMASH THE FASH

PARTISANS: 1941 is a tactics game with heart as well as smarts. *By Rick Lane*

While *Partisans: 1941* may look drier than a towel in Death Valley, a game with more brown in it than your average furniture warehouse, one should never judge a guerrilla fighter by the condition of their outfit. Behind *Partisans'* mud-stained trousers lies a capable real-time tactics game with some radical ideas and heart in abundance.

The game involves controlling a group of Russian resistance fighters dedicated to being a thorn in Hitler's side while his armies sweep across the Soviet Union during Operation Barbarossa. From your base situated deep in the forest, your ragtag band embarks on a series of increasingly daring raids against the Wehrmacht.

The core is similar to most other real-time tactics games. Each mission sees you pick several of your partisans to complete an objective in a large, openly explorable map, before safely exfiltrating back to your camp. These maps are swarming with guards that range from Polizei—a militia of Russian citizens working for the Germans—to crack SS soldiers whose machine-guns can rip up your squad like an unsolicited takeaway leaflet. Their sweeping vision cones and the complex arrangement of their posts and patrols makes every step your squad takes fraught with danger. Hence, the meat of the game involves evading, tricking, and ambushing these patrols, picking them off as you creep to your goal.

BOTTLE IT

Your partisans start off with next to nothing, a single knife and a handful of rocks you can use to distract guards. Soon, though, you'll have scavenged a wide range of equipment and abilities that'll help you get the upper hand, from guns and grenades to mines and trip-wires. My favorite partisan 'gadget' is a simple bottle filled with water. When placed on the ground, bottles attract the attention of thirsty guards hoping for a free

swig of schnapps, making them useful for disrupting patrol patterns.

Generally, *Partisans'* systems are more forgiving than its key touchstone *Commandos*, but it's also more nuanced. A good example of this is stealth. A guard's ability to detect you is based on proximity, so if you accidentally stumble across the edge of their vision cone, you've usually got time to rectify the problem. But guards can hear you as well as see you. Hiding inside a bush

will you make you practically invisible, but if you move around too much when a guard is nearby, they'll be alerted by the rustling foliage.

Another crucial difference between *Partisans* and *Commandos* is that being detected doesn't necessarily mean mission failure. Combat is as much a part of the game as stealth. It's advisable to soften up

The more I played of *Partisans*, the more I enjoyed it

NEED TO KNOW

WHAT IS IT?
Systems-driven real-time tactics game set in the Russian backwoods during WWII

EXPECT TO PAY
\$30

DEVELOPER
Alter Games

PUBLISHER
Daedalic Entertainment

REVIEWED ON
Nvidia GeForce 2080 Super, AMD Ryzen 5 3600, 32 GB Ram

MULTIPLAYER
No

LINK
partisans-game.com

guard patrols and encampments with stealth before engaging them head on. It's equally possible to defend yourself when things go awry, shifting your partisans into cover, using abilities like suppressing fire to keep the Nazis at bay, and using grenades to flush them out so your riflemen can pick them off. The fuzzier edge to *Partisans'* tactical play is mainly a good thing, but it does have downsides. Judging the effects of more aggressive tactics is difficult. It's hard to know whether a gunshot will simply alert the troops in the immediate area, or bring half the Wehrmacht down on your position.

After each mission, your partisans return to their forest camp, where a resource management minigame awaits. You need to find food and resources to keep the camp running, while also sending your partisans on autonomous side-missions for varying rewards. I like this element thematically, and the way equipment carries over from mission to mission is a neat touch, encouraging you to weigh your options and ensure that every bullet counts.

The more I played of *Partisans*, the more I enjoyed it. I like the slow build-up of your forces, the careful drip-feed of new characters and equipment. I like how each new mission is incrementally more ambitious than the last, starting with convoy assaults and rescuing civilians from Nazi death squads, then evolving into blowing up bridges and assassinating local comptrollers. I particularly like how earnest the whole experience is. The game clearly has great respect for its subject matter. It may be a bit shabby to look at, but with a redoubt spirit and a little ingenuity, *Partisans* certainly gets the job done. ■

PARTISAN STORE

Unique abilities for your squad



ZORIN

Age: 29

Specialties:
Leadership, Recon

Weapon proficiency:
Melee, pistol, rifle

Key Ability:
Knife throw



SANEK

Age: 14

Specialties:
Stealth, distraction

Weapon proficiency:
Shotgun

Key Ability:
Disguise



VALYA

Age: 21

Specialties:
Sniping

Weapon proficiency:
Rifle

Key Ability:
Aimed shot

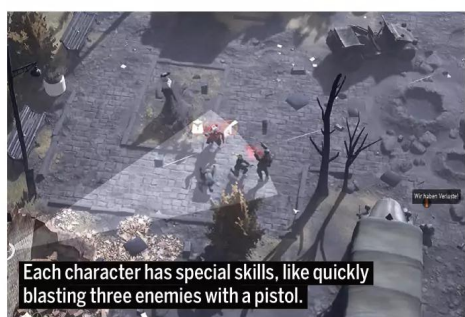
PC GAMER

VERDICT

Partisans combines a classic real-time tactics structure with more flexible systems for a winning formula.

80

Partisans won't win any beauty contests. Not that I'd say it to its face.



Pulling off a good ambush is really satisfying.



Weapons and equipment are persistent across the game, so get scavenging!



OIL AND WATER

NOITA offers destructive sorcery action in a fun, albeit messy roguelike package. *By Luke Winkie*

During one *Noita* run, I purchased a spell modifier I didn't fully understand. One of the core ideas in this roguelike is that you can alter your magic wands, becoming a true arcane master with clever min-maxing. But there's no safety net if your experimentation goes awry, or if you're not paying attention. When I next pointed my wand at a wall and clicked, a giant razorblade shot out, cranked a U-turn and ploughed into my wizard. Dead.

After doing my research, I believe the modifier I attached to that wand was called 'boomerang', and according to the greater *Noita* community, it's pretty much useless unless paired with various healing spells. That's the thing with *Noita*: Even the power-ups are conspiring to kill you.

There was a time, in the ice caves, where I found a wand that had an ability called 'unstable crystal' on it. I pulled the trigger, and immediately exploded, provoking another game over. I've accidentally polymorphed myself too many times to count. I've self-immolated, I've detonated explosive barrels that I didn't see until it was too late, and I've drowned in a vat full of whiskey. But despite all of those mishaps, I think *Noita* is one of the best roguelikes of the year (a year with *Spelunky 2* and *Hades*, no less). It isn't an easy game, nor is it fair, or balanced, or well-polished. But it can be absurd, brilliant fun—as long as you have the stomach for some turbid deaths along the way.

Every new *Noita* seed begins with your character—a robed, Dementor-

like wizard—perched at the precipice of a yawning cavern system just below your feet. Like most roguelikes, the structure of the world is consistent every time out. If you decide to traverse downwards (which

isn't the only direction you're limited to), the wizard will first encounter the mines, then the coal pits, the frozen depths, a steel alien stronghold, a toxic jungle, and so on.

There is no meta progression. You will

not be increasing your health or attack power at the start of each run; there is no talent tree here to bail you out. Instead, every game of *Noita* is a self-contained universe up until the moment the warlock on screen meets their demise. Freedom, here, can only be achieved by getting good.

FLASK MANAGER

If you know anything about *Noita*, it's probably that every pixel in the game is fully simulated. That became a huge talking point while the game was in Early Access, and what that means in practice is that nothing in the environment is static, and objects

**Freedom,
here, can only
be achieved
by getting
good**

NEED TO KNOW

WHAT IS IT?

A wizardy, spell-slinging roguelike

EXPECT TO PAY

\$20

DEVELOPER

Nolla Games

PUBLISHER

In-house

REVIEWED ON

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

MULTIPLAYER

No

LINK

noitagame.com

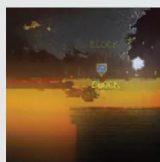
and enemies tend to cascade like teetering dominoes stacked in front of one another. Shoot a lantern with your wand, and watch the flames lazily snake through the moss and wood below. Toss a bomb at the bottom of an underground lake, and the bedrock is obliterated, creating a new waterfall that tumbles through the shattered earth.

One of *Noita*'s most ingenious uses of this 2D physics simulation is how it equips your wizard with flasks that can capture any of the fluidic reagents in the game. Sometimes, they can be used as magic potions—downing a glass of ambrosia will render yourself briefly immortal. Other times though, you can use them to solve problems with your brain. That seemingly impassable lava pit on the eastern end of the mines? Consider spraying your water bottle at it. The whole system gives *Noita* a simmy granularity that a lot of other games in the genre lack.

Most newcomers will scarcely scratch the surface of *Noita*'s underworld. This is a punishing game, and you will die in some deeply stupid ways. I sometimes don't know how I'm meant to succeed, which is frustrating.

That said, there are very few games that can create the sheer maelstrom of activity that *Noita* does. You're in a firefight with a shock trooper, your spell zings over his head and strikes the pile of gunpowder lurking in the shadows. Suddenly, both of you are trapped in a burning chasm, as the wooden vat containing a metric ton of oil begins to deteriorate in the flames, leading to more chaos. *Noita* desperately wants to show you what its little box of horrors is capable of. You just need to be patient enough to enjoy it. ■

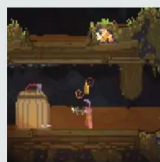
SPELLING MISTAKES *My most pathetic deaths*



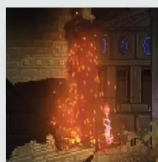
Drowned in a mixture of lava and other nasty stuff.



Threw a stick of dynamite into a vat of oil.



Drowned in whisky. There are worse ways to go.



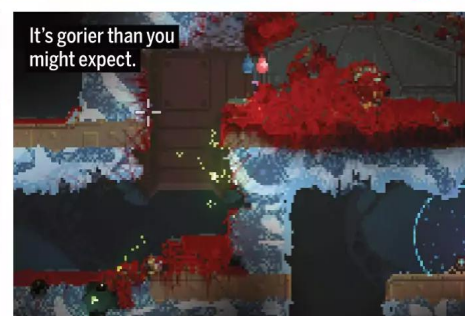
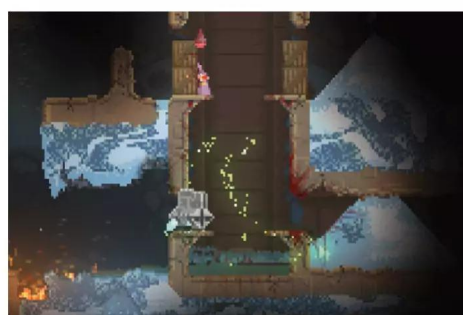
Learned what the gunpowder potion does, the hard way.

PC GAMER

VERDICT

Roguelike adventure and spell-building in a fully simulated, dynamic world that wants to see you dead.

81



WAR DEAL

SQUAD is a game for soldiers who actually want to work as a team. *By Luke Kemp*

Perhaps you like to jump in and out of online shooters, and you're looking for something like *Call of Duty* to dip into a few times a month. This is not that game. On the other hand, if you're looking for something that would jump out of the monitor and slap you around the face, you'll be in *oorah!* heaven here. It's a game that would only hold your hand in order to crush it.

The fact that *Squad* marched around Early Access for almost five years before official release might tell you something. Like many games that linger in public development for long periods of time, the final version is an awkward, sharp-edged puzzle for anybody approaching it for the first time.

There's a tutorial, including a large area for you to play around with the systems in, but there's absolutely no way you'll get your head around everything without a crash course of wikis, YouTube videos, and friendly veteran players.

From a distance, the fundamentals appear deceptively simple. There are several game modes, but they all essentially boil down to attack and defend. The most popular modes (by far) are concerned with the comfortably familiar concept of two teams battling to capture and hold control points on the map. Success or failure is utterly dependent on your team's ability to play in the way that *Squad* intends you to.

Death comes quickly and easily in this game. Expect to get killed a lot by players you never even see. This is one of the first things I learned and so, when I was carefully creeping through some trees, I wasn't surprised when somebody from

another squad came up alongside me and asked if there was danger near. I warned him about a sniper; he thanked me, then continued on his way. Matches are full of little things like this that, in the moment,

really help you soak up the atmosphere of a tense and unpredictable battlefield.

Kills are usually the least important element of a match

SOLDIER PADS

There is one significant issue that results in many unfair, frustrating deaths. Teammates are, as you would expect, identified by usernames visible above their heads. However, these are displayed with worrying inconsistency. A friendly right in front of you might have the name missing while you can see that of

NEED TO KNOW

WHAT IS IT?

A war sim with no interest in showing you the ropes, or telling you where they are

EXPECT TO PAY

\$50

DEVELOPER

Offworld Industries

PUBLISHER

In-house

REVIEWED ON

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

MULTIPLAYER

Yes

LINK

joinsquad.com

another across the street. Add this to the fact that it's usually very difficult to distinguish between friend and foe based on character models, and you won't be surprised to hear that every match of *Squad* that I've played has featured a lot of team kills. The fact that the game has left Early Access with what is a pretty fundamental flaw indicates that the developer has no intention of fixing it.

Yet despite this, I still manage to have a lot of fun, and create countless unique anecdotes. Kills are usually the least important element of a match, really, and this is reflected in the score weighting. Kill an enemy and, if they're not revived, you've cost the other team a ticket. You can however lose them more tickets (or even gain some for your team) and/or score big points through actions such as capturing and defending points, helping to build structures, deconstructing enemy structures, and reviving your teammates. I love the fact that not only is the leaderboard divided by team, the teams are then ranked by squad—rather than by individual player.

It's a game so dense with variables, I haven't scratched the surface here; but this is a review, not a wiki entry. The most important thing to understand is that this is a game that only works—and, indeed, is only actually fun—when you act as part of a team. Making a tense run across a road when you suspect there's a sniper above you, reviving and healing teammates while under fire, helping several others establish a new base... it's thrilling, intensely satisfying stuff. If only identifying enemies was as easy as in, well, pretty much any other online game I've ever played. That would turn a good game into a great one. ■

GETTING STARTED *The first ten hours of playing Squad*

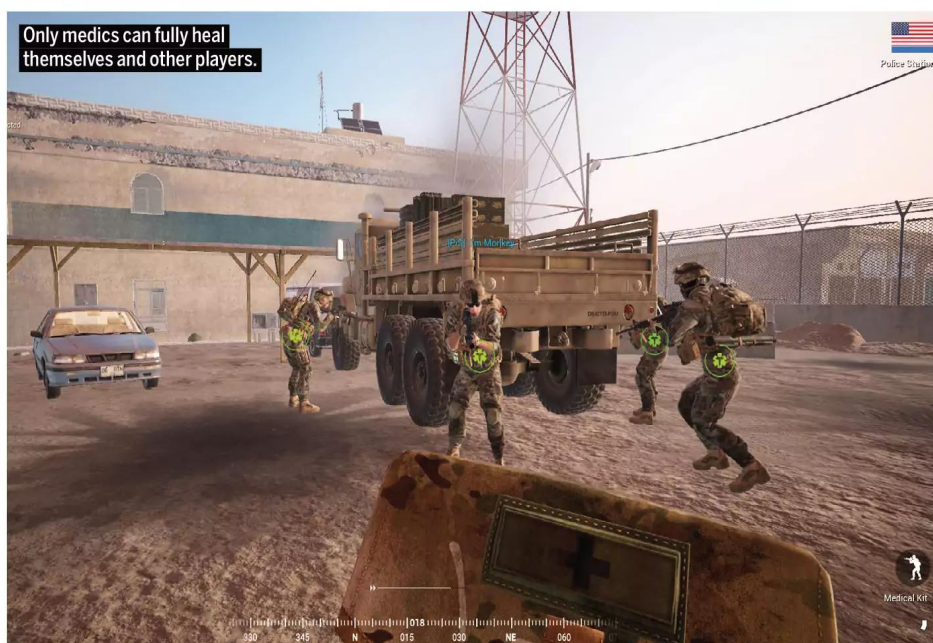


PC GAMER

VERDICT

Squad is a hardcore team game that forces you to play its way, but it impresses despite some unfriendly systems.

75



BREATH OF THE WAIFU

GENSHIN IMPACT's beautiful open world is a blast to explore. *By Steven Messner*

Really, I shouldn't like *Genshin Impact* as much as I do. It has lootboxes with dreadfully low drop rates, an energy system that limits how quickly I progress, and an extremely annoying sidekick that refers to itself exclusively in third person. These flaws would doom other games, but *Genshin Impact* is also a fantastic RPG set in a vibrant open world that is so much more fun to explore than most full-priced games I've played this year.

If *Genshin Impact* has a secret weapon, it's that it isn't afraid to swipe features from other games, most notably *The Legend of Zelda: Breath of the Wild*. Just like Nintendo's seminal hit, there's an enormous world to explore that's teeming with secrets, puzzles and cleverly hidden loot. There are mercifully few icons on the map, so a lot of the exploration is self-guided. I have to climb mountains, glide across canyons, and pay attention to my surroundings if I hope to discover it all. It might offend hardcore Nintendo fans, but *Genshin Impact* doesn't just thoughtlessly copy and paste these ideas. It expands on and tweaks them to fit really nicely into a loot-obsessed RPG that is—despite what its roots in mobile games might imply—incredibly fun to play.

WHOLE NEW WORLD

It's actually easier to understand *Genshin Impact* if you think of it less

The two regions are not only enormous, but packed with puzzles

like a free-to-play mobile game (that's also on PC and PS4) and more like a proper singleplayer JRPG like *Ni No Kuni II* or *Tales of Vesperia*. You play as one of two twins whose dimension-spanning vacation gets ruined by a mysterious god. It's a journey that leads you from being inducted into an order of knights to proving your innocence after being accused of murdering a demigod. *Genshin Impact* might be a Chinese game, but it walks and talks like a JRPG.

The story isn't the reason *Genshin Impact* took over my life for a few weeks, though. It's what happens when the game inevitably tells you to go level up for a bit before you can move onto the next chapter. In a game like *Assassin's Creed Odyssey*, I resented how the story was gated by my level because it felt like my mother arbitrarily forcing me to go outside for an hour to get some exercise. In *Genshin Impact*, though, being told that you have to level up a

NEED TO KNOW

WHAT IS IT?

A free-to-play RPG inspired by *Breath of the Wild*

EXPECT TO PAY

Free-to-play

DEVELOPER

MiHoYo

PUBLISHER

In-house

REVIEWED ON

i7 7700, RTX 2070, 16GB RAM

MULTIPLAYER

Yes (co-op)

LINK

genshin.mihoyo.com

bit before you can continue is a blessing, because exploring is what *Genshin Impact* does best.

The two regions of Mondstadt and Liyue are not only enormous but absolutely packed with puzzles that encourage you to pay careful attention to your surroundings at all times. Hidden chests full of loot are tucked into most nooks, but you might see a trio of torches and decide to use some fire magic to light them and get a reward. Or you'll find a wayward spirit that guides you to a hidden treasure, or find collectibles that can be offered to special statues to increase your overall stamina. Some of these puzzles only take seconds to solve while others are more involved—cryptic riddles or hidden switches that require clever use of your magical abilities.

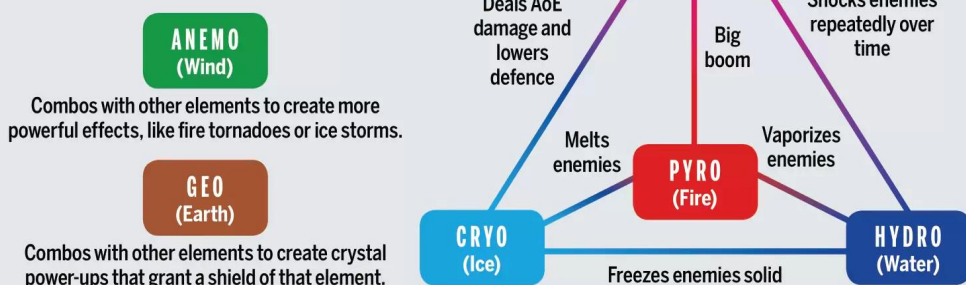
If I spend an hour wandering around, I'll quickly rack up a ton of equipment, money, and resources for upgrading the different party members, and the currency needed to buy lootboxes. I'll also earn experience points toward my Adventure Rank, which unlocks more story quests along with features like dungeons, daily quests, and even a co-op mode so I can explore with three friends—though it's restricted to only a handful of activities that significantly limits its potential.

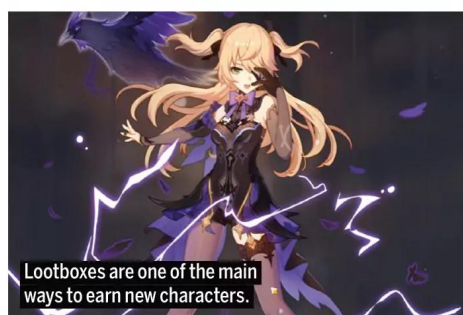
It's a collection of systems I like a lot more than most open world games because it strikes a balance between the intrinsic fun of exploring with extrinsic rewards like loot. In *Breath of the Wild*, for example, I might spend an hour wandering and only have a handful of useless gemstones to show for it.

I love how combat folds into this fun loop of searching and looting, too. Though my party consists of four characters, only the one I'm actively controlling appears on screen at a time. With the press of a number key, I can switch to one of the other three in a snap, immediately letting me start wailing on enemies or use their abilities to solve a tricky puzzle.

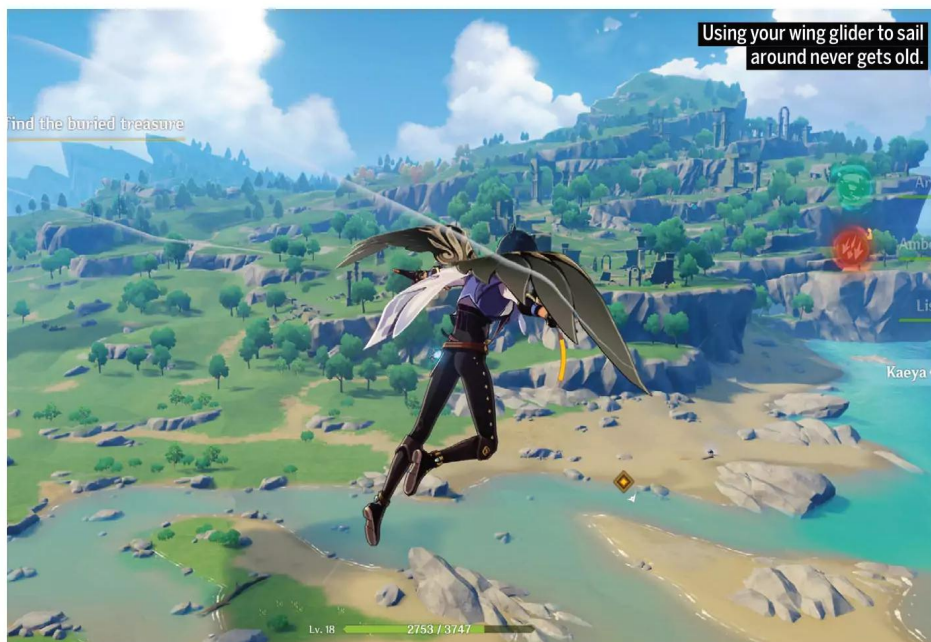
IT'S ELEMENTAL

How the elements interact





Genshin Impact

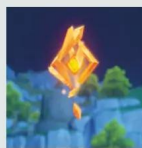


KEEN SENSES *Some things to look for as you explore Teyvat*



SEELIES

Find one of these little spirits, and it'll lead you towards some treasure.



AMENOCULI

These orbs can be offered to statues to increase your stamina.



CHALLENGE TOTEMS

Beat the associated challenge for some free loot.



CHESTS

You'll find these absolutely everywhere, and they're packed with goodies.



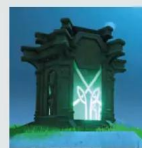
ELEMENTAL TOTEMS

Hit them with the appropriate element to find hidden loot.



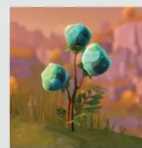
UNLIT TORCHES

Try lighting them—they'll usually spawn a hidden treasure



SHRINE OF DEPTHS

Needs a key to access, but rewards excellent loot.



WEIRD FLOWERS

Hit them to release spores—shoot those to reveal a

» Each character belongs to one of six elements that empowers their abilities and can interact with the environment and enemies in surprising and delightful ways. If it's raining, an ice character like Kaeya can freeze enemies solid with his special abilities, or I can use Lisa's lightning attacks to constantly electrocute anyone nearby.

The environment reacts to all this magic, too. I can freeze water to make an ice bridge or start a grass fire that'll sweep into an enemy camp and detonate the powder kegs they have stored there. A lot of puzzles also require a certain type of magic, like using Amber's fire arrows to light distant torches or using my main character's earth ability

to drop a heavy stone on a switch so a door will stay open. Learning all of these different elemental interactions and finding clever ways to use them is a blast. It's a simple enough system

that I mastered it in just a few hours, but it never gets boring. The unpredictability of the weather, environmental features like dry grass or explosive barrels, and my enemies' own elemental abilities keep things feeling unpredictable and exciting.

CAVEATS GALORE

You can't talk about how great *Genshin Impact* is without acknowledging its crappy monetization practices that go beyond what you'd normally see in free-to-play PC games. Some of it is pretty standard stuff, like a battle pass with an optional premium track that costs real money to unlock. But *Genshin Impact* also sells lootboxes called Fates that go far beyond the usual cosmetic skins. Fates drop new

characters for your party or powerful new weapons for them to use in battle. The rarest of these only have a 0.6 percent chance to drop—though there are some 'pity' systems in place that guarantee a top-tier reward if you don't get one after opening a whopping 90 of them.

The good news is that, after playing for 40 hours, it's almost baffling how little these lootboxes matter. You earn the currency needed to purchase them at a generous pace from various activities, and the characters and weapons you'll find just by playing the main campaign are more than enough to see and enjoy most everything there is to do. If you care about optimizing your

team or min-maxing individual characters, however, *Genshin Impact* will absolutely rob you blind.

It's a weird issue that I didn't encounter until reaching level 40 and completing most of the story, but *Genshin*

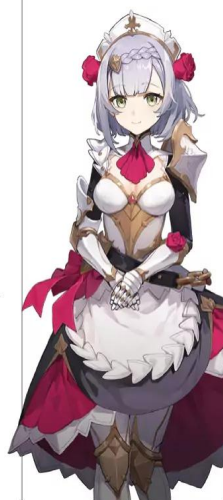
Impact's endgame grind is pretty unbearable. Each character in my party and their weapons has an individual level that is increased by feeding it certain resources, but at certain thresholds, like level 20 and 40, you have to 'ascend' by tracking down some rarer resources.

I actually like this idea and the first few times I ascended characters I enjoyed treasure hunting for the right materials, but the problem is that most of this stuff is awarded for killing certain bosses or doing special dungeons called Abyssal Domains. Both of these activities (and a few others) require you to spend a regenerating resource called Resin, but I only get so much each day and it's shockingly easy to quickly blitz through my stockpile.

If you've played a gacha mobile game before, this won't surprise you, but I find it especially frustrating because *Genshin Impact* is so close to being a revolutionary free-to-play game that transcends this exploitive, manipulative nonsense. It's weird that it gives so much away for free, only to clamp down so hard on the endgame grind. I went from being able to play *Genshin Impact* for hours on end like a proper RPG to jumping in for half an hour or so each day, before being arbitrarily forced to stop because I've run out of Resin. I could pay to restore it, but that feels like an enormous waste of money. I'd rather just play something else.

It's such a jarring and abrupt change that really highlights how carelessly these monetization systems have been implemented. I desperately wish its developers would find a better way, because I'd happily pay up and support its ongoing development, but I'm not going to gamble my money on lootboxes with odds this bad.

This doesn't change the fact that *Genshin Impact* is one of my favorite games this year, it just sucks that we've been driven apart prematurely, especially when other free-to-play games manage to strike a healthier balance in how they monetize. The way it stitches *Breath of the Wild* and classic JRPGs together is awesome, and the fact that you can enjoy so much of the game for free still makes it worth playing. Just know that, at some point, you'll smash into that wall. Maybe if you know it's coming, it won't hurt so much. ■



I'm not going to gamble my money on lootboxes with odds this bad

PC GAMER

VERDICT

Genshin Impact's cleverly-designed open world and combat are fantastic, but those microtransactions...

84

FAMILY AFFAIR

Relive the rise and fall of Tommy Angelo in **MAFIA: DEFINITIVE EDITION**, a shiny remake that's still rooted in the past. *By Andy Kelly*

Welcome to the 1930s. The economy has collapsed, authoritarian regimes are gaining power around the world, dust storms are killing crops, and to make matters worse, booze has been declared illegal. But for Tommy Angelo, a lowly cab driver in the city of Lost Heaven, the Dirty Thirties are an age of opportunity. This is the story of his rise from working stiff to mafia big shot.

But before you dive into the criminal underworld, you have to spend some time earning an honest living. The first mission in *Mafia* sees you driving a taxi, picking up passengers, and getting a feel for the city. The *Mafia* series has always been great at slowing down and giving you a chance to immerse yourself in its evocative world, and this glitzy remake of the 2002 original is no different.

Naturally, it doesn't last long. After a fateful encounter, Tommy ditches his cab and joins the Salieri crime family. The jobs are simple at first: Squeezing protection money out of local business owners, driving people around town. But thanks to a vibrantly paced story, it's not long before you get to indulge in car chases, shootouts, robberies, and all the other jolly activities of a hard-working mobster.

MOB RULE

Mafia features an open, explorable city, but it's not an open world game.

This is a completely linear experience, split into tightly designed missions, so don't go in expecting a big *GTA*-style playground. It's a cover shooter, really, interspersed with long drives and slower moments of

scene-setting to let you soak up the atmosphere, before the bullets start flying.

It gets the balance right. You rarely feel overloaded with combat, with plenty of breaks in between to wander around, talk to

people, or take a drive. The shooting is chunky and satisfying, but ultimately pretty basic. And sluggish character movement makes sprinting between, and snapping to, pieces of cover feel clumsier than it should.

It is, honestly, a deeply average, old-fashioned shooter. But through its use of set-pieces, world-building, and storytelling, I was often having too much fun to care. One mission in particular, which takes place at night during an apocalyptic thunderstorm, is brilliantly crafted, thrillingly tense, and hugely atmospheric. It's still just

Deep down it's the same game and sticks closely to the source material

NEED TO KNOW

WHAT IS IT?

A gangster epic set in 1930s America

EXPECT TO PAY

\$40

DEVELOPER

Hangar 13

PUBLISHER

2K

REVIEWED ON

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

MULTIPLAYER

No

LINK

mafia-game.com

driving and shooting, but the way it's packaged is magnificent.

It's all smoke and mirrors, of course. But when it's this entertaining, I don't mind being fooled. Make peace with the fact that *Mafia* is a heavily scripted, totally linear, story-led shooter and you can just sit back and enjoy the ride. The story isn't as good as *Mafia II*'s, but the tale of Tommy Angelo's rise and fall is very well told.

But it's worth remembering that the bones of *Mafia: Definitive Edition* are almost 20 years old. The game has been rebuilt with new technology, but deep down it's the same game and sticks closely to the source material, especially in how the missions are structured and paced.

Of course, it looks a whole lot better. Lost Heaven is a little emptier than some modern videogame cities, but it's occasionally incredible to look at—especially at night when it's raining. The period accurate signage, fashion and vehicles do a good job of making you feel like you've stepped back in time, in addition to a nice selection of old timey music on the radio. The sense of place is superb.

And if you really want to get lost in the setting, you can set it so that driving over the speed limit, running red lights, or bumping into other cars will get you in trouble with the cops. This adds a layer of simulation to the city, but you can disable it if you'd rather just gun it to the next location without worrying about the law.

Whether you're well acquainted with *Mafia* or a newcomer, this is a solid remake that's well worth playing. The new tech doesn't hide the fact that it's a game built on 18-year-old foundations, but it's a fun and well-presented gangster epic with a compelling setting. ■

MEAN STREETS *Places to visit in Lost Heaven*



LITTLE ITALY

Tommy's boss, Don Salieri, has operated here since the 1920s, but is beginning to lose his grip on the neighborhood.



CENTRAL ISLAND

Lost Heaven's tallest skyscrapers are all squeezed onto this island, and can be seen from most places in the city.



DOWNTOWN

This is the bustling heart of Lost Heaven, with offices, luxury hotels, department stores, and a grand church.



BEECH HILL

You'll find the mansions of Lost Heaven's wealthiest citizens here, which makes it a fine target for a crook.

PC GAMER

VERDICT

A decent, if unremarkable, cover shooter, elevated by artful scene-setting and memorable set-pieces.

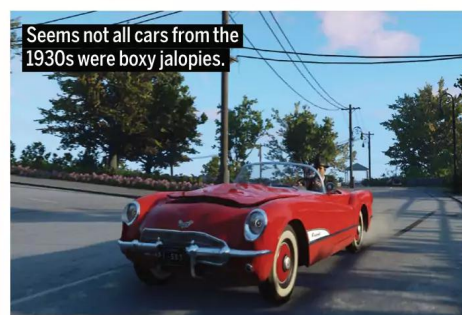
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Mafia: Definitive Edition

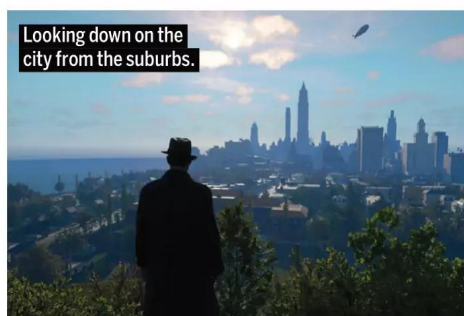
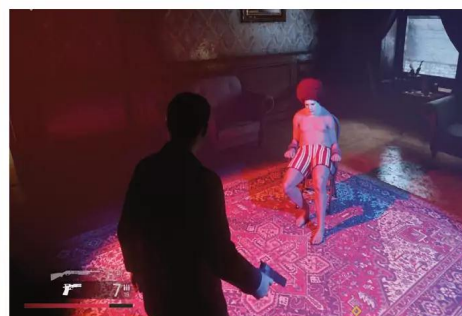
Tommy has been given a pretty major facelift in the remake.



Tommy the cabbie, before he becomes a gangster.



Seems not all cars from the 1930s were boxy jalopies.



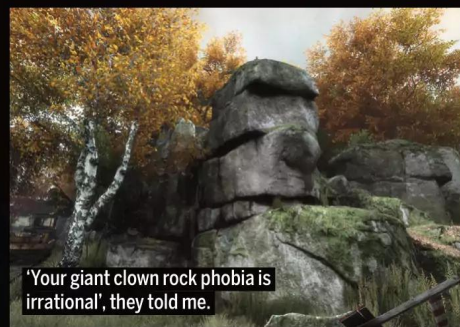
Looking down on the city from the suburbs.



The facial animation is some of the best I've seen.



I lose my journo licence if I don't point out how pretty this is.



'Your giant clown rock phobia is irrational', they told me.



POLICING SPECTRE

Slowly walking past the best bits of **THE VANISHING OF ETHAN CARTER**

We get so used to doing everything in games instinctively that occasionally, it's nice to play something that challenges how you interact with the world. It's a sort of mindfulness. You have to think deeply, to stop, explore, absorb. The problem is when that doesn't work and you end up a lost and embarrassing mess, tabbing back to walkthroughs like a parent trying to take a pic using someone else's phone.

Whether by design or accident, *The Vanishing of Ethan Carter* has both moments of detailed contemplation and total bewilderment. The game is quite clear about its refusal to hold your hand from the start, which means you stroll past entire sections before the stress of missing stuff starts scratching the back of your brain. Other times, it couldn't be more obvious, such as when the word 'crank' is repeated 15 times about a crank-shaped hole which one presumes requires some kind of cranking crank, for cranking. When the game chooses to direct you it doesn't so much hold your hand as crush it. Once you acclimatize to the language of the game, however, it does feel like a refreshing experience, and one that goes beyond slightly obscure worldly interactions. One moment I'm in a

forest, probably looking for cranks; the next I'm experiencing interstellar travel as a spaceman. It's the sort of moment that blindsides you, to the point that I actually wonder if I've walked past something important

and accidentally got the bad, 'you died in space, you idiot' ending.

Some parts are still gamey and intuitive. As Paul Prospero, you have to do things like reconstruct murder scenes and arrange spectral crimes in the

correct order to piece together exactly what happened. These bits click naturally, and it's reassuring to be doing something that seems intuitive. Another section has me moving through magical rooms in a witch house—a puzzle I refuse to learn, that I brute force with trial, error, and minimal analysis. If anything, the more relatable elements

The game is quite clear about its refusal to hold your hand

NEED TO KNOW

WHAT IS IT?
Crisp-leaved autumn simulator about a missing boy

EXPECT TO PAY
\$20

DEVELOPER
The Astronauts

PUBLISHER
In-house

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

MULTIPLAYER
No

LINK
bit.ly/3dpSwBW

just make *The Vanishing of Ethan Carter* more interesting. These spectral asides often ease the tension that comes from playing a game with a proudly left-field approach to learning. Instead of worrying about if I've missed something, I'm enjoying the crisp delineation of a puzzle about magic rooms. It's not a bad thing. But it's one of the few times I can remember that a dilapidated warlock brothel feels like a reprieve.

PRETTY AS A PICTURE

This is in keeping with the rest of the game, which is sinister, if never scary. It's actually a pleasant change. It feels more like a wholesome experience that's started to decay, rather than a horror game out to make you jump. It's the sort of big beautiful game that makes you want to pop the collar on your trench coat, turn your face to the sunset, and narrate your own thoughts in your head. It makes for a unique, personal experience that's surprisingly stirring when it clicks. ■

PC GAMER VERDICT

Sedate and strange, *The Vanishing of Ethan Carter* is built for cold nights, pumpkins, and getting lost in the woods.

75

HAMM FISTED

SHERLOCK HOLMES: THE DEVIL'S DAUGHTER

There are lots of things I want to do in a *Sherlock Holmes* game. I want to recline indolently in an opioid haze; to steeple my fingers and examine shirt cuffs. What I never want, however, is to stop being Holmes and instead control a reeking urchin tailing a potential suspect with my Guttersnipe Vision. But this happens in *The Devil's Daughter*, alongside numerous other ill-conceived distractions

It's surprising, because this isn't the thing I expected to hate. I was primed to spend 300 words bemoaning Watson's moustache. But actually, once I get into the business of looking for clues and exploring clammy Victorian London, I don't really don't care how much Holmes looks like a deflating Jon Hamm balloon. It's still a deliciously slow game, with a broader, more open

world than *Crimes and Punishments*. It's not exactly *Red Dead*, but my level of investment is enough that I get excited about seeing the hallway of 221B Baker Street. The cases here also have enough mystery to keep me engaged, but they sometimes lack the seasoning of the excellent first game. Helping a malnourished boy find his missing father is still compelling, for instance, but it doesn't come to the rich, empathetic conclusion you hope. There's a *thinness* to it all, like a cup of tea brewed with a used bag. Games like this are rare and special. Even skipping the execrable chase sequences feels like a waste. It's still a world I'm delighted just to inhabit—a place of spitting fires, clinking sugar tongs, and snoring basset hounds (which you also have to play as)—but I can't help but wish there was more of what made *Crimes and Punishments* so gently compelling. ■

61



A level of polish nobody asked for.



It's one hypnotic carpet away from being a Wetherspoons.

NEED TO KNOW

EXPECT TO PAY
\$50

DEVELOPER
Frogwares

PUBLISHER
Nacon



Take away the cannon and it's a Magic: The Gathering tournament.

RETURN OF THE OBRA DINN

If *Obra Dinn* was a scene in a movie, it'd be a post-party montage where the broken glass is swept up, the fluids are mopped, and the motionless stripper is disentangled from the grand piano. The satisfaction of putting everything back in its proper place here is slow, deliberate and thoughtful, to the point that you almost forget that you're dealing with violently murdered souls. Instead, they become scattered puzzle pieces that must go neatly back in the box. Occasionally something will be missing—quite often the box itself—but the act of finally getting everything shipshape is almost unparalleled in the satisfaction it provides. ■

93



Imagine trying to hang flat paintings on a round wall. Nightmare.

UNHEARD

Taking the visual element of a detective game away is a novel idea. Instead of fecklessly clicking on every item in sight, *Unheard* forces you to listen. It's a satisfying tangle of failed plans, half-heard phone conversations, and logical elimination. The voice acting and characterization can be lumpy in places—there's literally a French artist called 'Maestro', for instance—but it's often necessary. Even when the delivery is like being battered by a ham hock with a story written on it, it's useful that you immediately understand who's who. It sometimes feels like the game's making it too easy for you, but the mysteries are still beguiling enough to be fulfilling. ■

71



The moment you realize you're trapped in a narrative ouroboros.

Things are worse than I thought...

D4: DARK DREAMS DON'T DIE

Trying to come close to explaining *D4* in 90 words is close to impossible. What you need to know is that it's unique, unhinged, and unlike almost anything else, even among the SWERY pantheon of detective games that make bollock-all sense. And that sounds like the sort of lark that should sit comfortably in the 'play this if you like this sort of thing' 70s. But sadly, there's only one season and we'll likely never see how it ends, so I'm reluctantly docking ten points from a game that deserves better. ■

68

EXTRA+LIFE

CONTINUED ADVENTURES IN GAMING



Environments are busy and bursting with color, making for some fun snooping.

“I had to summon the ghost of a lovely chap who opened a yoga retreat”

Living my best afterlife in ghostly puzzle game **I AM DEAD**

I’ve played a lot of games about death this year. I’ve cried over *Spiritfarer*, chuckled along with *Necrobarista*, and had my heart strings pulled in *Welcome to Elk*. Heading into *I Am Dead*, I was kind of done with contemplating my own mortality. Luckily, it takes a pleasingly different approach to the subject of passing on.

I Am Dead is a fun puzzle game that handles the topic of death with charm and silliness. You play as Morris Lupton, a ghost who used to be a museum curator on the island of Shelmerston. After reuniting with the ghost of his dog Sparky, who can now talk, the two need to find the town’s

RACHEL WATTS



THIS MONTH
Stopped a volcano erupting with the help of Sparky.

ALSO PLAYED
Hades, *Going Under*

other ghosts in hopes that they might help stop the island’s volcano from erupting, saving the lovely seaside town from total destruction.

Although its story sounds intense, *I Am Dead* is a breezy game. It’s a hidden object puzzle game where your goal is to learn the stories of the recently deceased islanders, find objects that were special to them when they were alive, and summon them from their eternal slumber.

With your new ghost powers, you have the ability to look inside objects meaning you can poke around in desk drawers, shop interiors, cans of soup—you name it. There’s a wonderful bit where you can look inside a toaster and see all the mechanisms (and bread) inside. Finding each object is easy enough, but having a nose around *I Am Dead*’s colorful scenes and finding hidden surprises is what really makes it fun.

You can zoom in and out in each area, and can click on every object for

WITH YOUR GHOST POWERS, YOU HAVE THE ABILITY TO LOOK INSIDE OBJECTS



further inspection. As you explore each scene, Sparkly will also sniff out little creatures called Grenkins which act as mini-bonus puzzles. Finding these cheeky critters isn't essential to the game, but adds an extra bit of challenge for those who breeze through the game's main puzzles.

GHOST TOWN

To understand what objects you need to find, certain characters in each scene have a thought bubble above their heads indicating that you can search their memories for clues. For my first encounter, I had to summon the ghost of a lovely chap named Peter Noach who opened a yoga retreat in a lighthouse.

After searching through the memories of one of Pete's workshop attendees, I find out that he was an army veteran. His experiences in war deeply affected him later in life, with him finding peace and friendships practising yoga. Learning of his life leads me to finding his medal which he received for bravery during the war. The game never touches upon how he died, but instead on how he lived, and it shows this same respect with all its deceased characters.

I love that *I Am Dead* takes such a spirited approach to death. We learn of these characters through the memories and objects they left behind, instead of focusing on their passing itself. It makes for a light and fun story that makes my heart swell rather than break. ■



“My kingdom’s a political landmine”

Starting a baby boom in **CRUSADER KINGS III**

▶ ROBIN VALENTINE



THIS MONTH
Boldly viked where no Viking had viked before.

ALSO PLAYED
Darkest Dungeon,
Among Us

As is traditional, my first run of *Crusader Kings III* saw me rise from a lowly count of Ireland to unite the Emerald Isle under my iron rule. But after that very familiar adventure, I began to crave more unusual challenges.

I found myself establishing a Viking kingdom in North Africa. Starting as the Norse adventurer Haestinn of Nantes, I raided down the coast until I could establish a foothold in Marrakesh. With a horde of Northmen behind me, I swallowed up my neighbors' lands.

Taking land is easy—holding it is the difficult part. With enemies on all sides, and a population that hated me for being a foreign invader, my founding kingdom was already on incredibly unsteady ground.

In *Crusader Kings III*, religion is huge. Changing my character's culture to fit in with the local Berbers helped my public image a little, but it was my worship of Thor, Odin, and

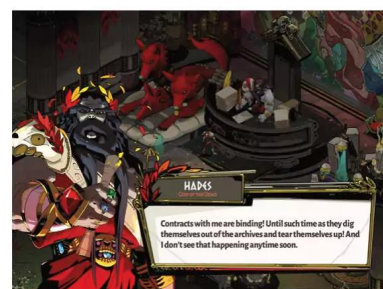
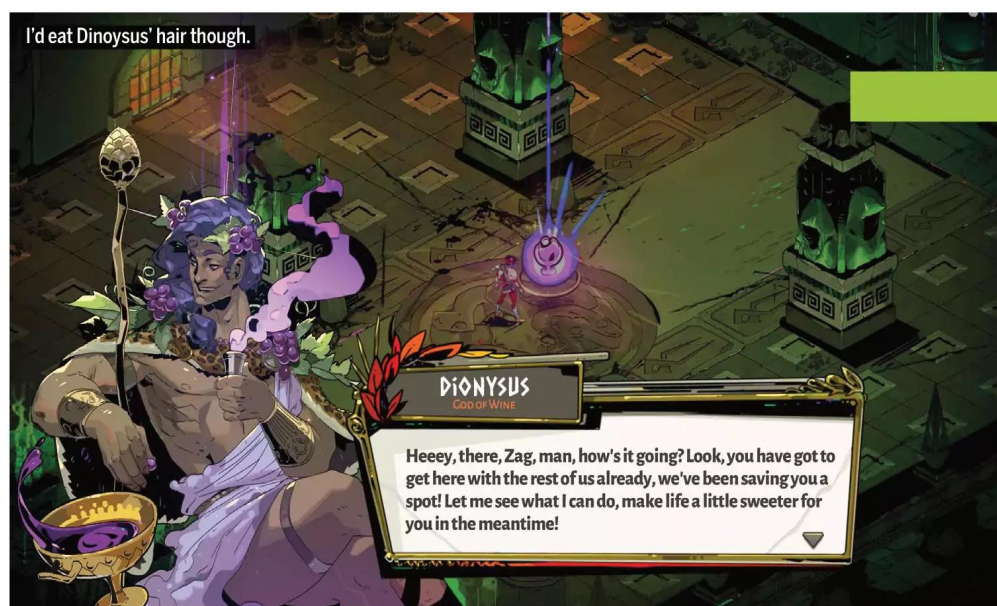
the rest of the Norse deities that really made life difficult—and I'd be damned if I was going to convert away from a faith that lets me do human sacrifices *and* pray to characters the MCU.

MAYBE BABIES?

Beset on all sides by holy wars, I realized my greatest strength wasn't my armies—it was my loins. According to law, Vikings can take up to three concubines in addition to their lawful wife, usually ladies nabbed in raids on neighboring provinces. With four female companions of child-bearing age, a virile Scandinavian can father ten or even more sons and daughters over their lifetime—and a baby is more dangerous than any blade.

That's because every kid you marry off to some other ruler's sprog is the basis of an alliance. Before long, my progeny have unknowingly formed a web of defensive treaties so convoluted that my kingdom's become a political landmine. Step on me, and half the continent explodes in your face. A few messy wars later, and my enemies are cowed—or recruited—and I'm given the breathing room I need to strike back and forge my ahistorical empire.

Is treating your own children as a sort of production line of bargaining chips all that ethical? No. But you can't argue with results. ■



“The character designs feel like they were spec'd out for horny fanfiction”

HADES is too devoted to an old fashioned ideal of beauty

I'm not above wanting to kiss a cartoon. *Hades'* art direction shows off the excellent craft and skills Supergiant's been honing since *Bastion*. Characters are colorful and detailed, a few simple poses and outfits spilling touches of light on their mythological origins and contemporary interpretations.

But all these gods are just too goddamn slim and chipped. *Hades'* character designs feel like they were spec'd out for horny fanfiction. And that's totally cool, but the attractive shapes and traits on display here are at odds with an otherwise subversive game. Given the opportunity to reinterpret Greek mythology for a modern audience—whose ideas of beauty are far more diverse than what's on display here—and drive home the themes by tricking people into liking roguelikes, why is everyone so cut and proportionate?

I'm bummed! Mega bummed about it, because I'm yet another one of those folks leaping out in rush hour roguelike traffic to say I hate the mean things, but *Hades* works for me. *Hades* lightens the pain of inevitable losses with tons of progression

▶ JAMES DAVENPORT



THIS MONTH
Tried to count the number of muscles on a minotaur.

ALSO PLAYED
Remnant: From the Ashes,
Spelunky 2, *F.E.A.R.*

systems, so many that calling it a roguelite feels disingenuous, too, though it's the narrative dressing that really keeps me going. And maybe the intent was similar with how the gods are depicted, as perfection personified that over time shows cracks and faults.

Even so, depicting the gods as conventionally attractive people was a decision, conscious or not, that loudly states 'this is beauty' on the behalf of the developers. Beauty, even in the form of ego with a face, doesn't have to be slim and slightly above average height. It's tall, short, wide, stout, curvy—all sorts. I hate that I have to argue for better

representation among fictional assholes. Even Chaos has pecs.

Hades' adherence to beauty follows tracks laid in the early days of mass media and advertizing, but its lavish visual novel presentation is totally diluted by an abundance of 'fit people' silhouettes. I can barely make out some of these guys, their muscles, no matter how shallow, casting long shadows all over themselves like a bad magic eye puzzle. Stare long enough, and you can make out the image of a boring hunk in a resplendent bed sheet. And I'm supposed to think about the folly of the gods' human-like characteristics?

GODS AMONG US

I'm looking for relief when the combat inevitably gives into the proposed comfort of cool character poses and conversations. I love the back and forth here, but after I'd met nearly everyone, the distinctions between the gods blurred. They're all just annoying, petty, athletic dorks, and it takes something like 20 hours of play for the pathos for many of them to even begin to emerge. That's a long time to scroll Olympus Instagram before something like empathy punches through the subconscious self-deprecation. ■

I HATE THAT I HAVE TO ARGUE FOR BETTER REPRESENTATION AMONG FICTIONAL ASSHOLES

“Watch Dogs is a game with the improbable tech of Knight Rider”

Hacking Chicago to pieces in **WATCH DOGS**

The year 2014 seems like a long time ago now. People below retirement age were still using Facebook, checking TikTok meant looking at your watch, and shaking hands with a stranger wasn't considered attempted murder. What a time for a game about hacking to launch into. The world was still reeling from Edward Snowden's 2013 revelations regarding global surveillance of citizens, and here was an adventure all about snooping on cameras and calls and viewing people's hidden lives.

Revisiting *Watch Dogs* in the hellscape of 2020, I experience it as a game of two halves. I don't mean that it plays like *FIFA*, but that it feels like two different games forced together, whether they like it or not. The first half is the commentary, imperfect yet still intriguing, on surveillance culture. The game was announced a year before Snowden was catapulted into the history books, yet I can't help but wonder if his unmasking of intrusive government surveillance prompted some 11th hour development choices.

LUKE KEMP



THIS MONTH
Spied on people and hacked their bank accounts.

ALSO PLAYED
Vampyr, *Modern Warfare*

Aiden Pearce's phone is more magic than technology, but that doesn't really matter. It's a conduit for expressing how much of our lives, how much of who we truly are, is vulnerable to hacking. We live online lives. By 'profiling' random NPCs with my phone, I can instantly see how much each makes a year, as well as a random fact about them. Religious belief, perhaps, or what they regularly search on the internet, or a previous criminal conviction, or a recent purchase. As in real life, this information is easily accessible to somebody who knows where and how to look for it.

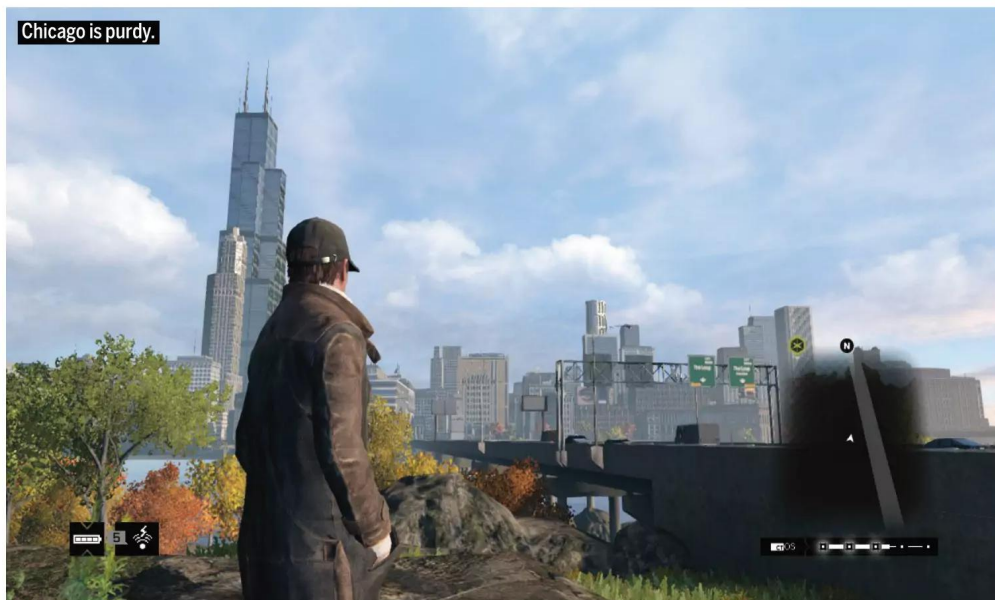
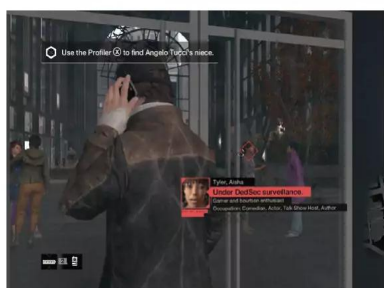
IT FEELS LIKE TWO DIFFERENT GAMES FORCED TOGETHER, WHETHER THEY LIKE IT OR NOT

HACKSTREET BOYS

Although this info is supposedly delivered via a facial recognition system, it occurs to me that this could just as easily have come from the person's phone. Imagine somebody got hold of your mobile. They would potentially have access to your photos, private conversations over messaging apps, every email you've ever sent or received, contact details for your friends and family, your purchase history on various websites, plenty of evidence of your political leanings, and much more.

The other half of the game I find is much more lighthearted. *Watch Dogs* is a game with the attractively improbable tech of *Knight Rider*, yet with none of the humor. I don't know how or why I can 'hack' pipes under the road, or forklift hydraulics, but I'm glad that I can! And I love it when I escape armed pursuers by forcing a train to stop on the tracks, jump on, and get it started again for a public transport getaway.

OK, it's probably got the worst vehicle handling of any open-world game in history; but it still has something to say, and remotely causing traffic accidents in a generic sports car is *always* going to be fun. ■



TEMTEM

The new patch takes Temtem tamers to the Rockies. *By Rachel Watts*

After launching into Early Access back in January, peppy *Pokémon*-inspired MMO *Temtem* has been slowly growing in size. Its setting is focused on a group of islands called the Airborne Archipelago, and throughout your journey, you'll be visiting all six of them, collecting all their local Temtem. During the game's Early Access development, players have had access to three of these islands, but in the recent 0.6 update, developer Crema has introduced the fourth island, Kisiwa, complete with new dojo masters, story progression, player housing, and, of course, plenty of new Temtem.

Kisiwa is a world away from the Mediterranean shores, lava caves, and crystal coves of the first three islands. The new area is made up of sun-drenched deserts and rugged cliffs, which means travelling around will require some rock hopping expertise. With Kisiwa's rough terrain, the grappling hook and the new climbing equipment will get plenty of use, allowing you to climb the sides of cliffs and leap across canyons.

This new terrain is home to 25 new Earth and Normal type Temtem that match their rocky surroundings. The new critters are a great mix of designs but, regardless of type, I am

NEED TO KNOW

RELEASE 2021	DEVELOPER Crema
PUBLISHER Humble Games	LINK crema.gg/games/temtem

automatically drawn to the cutest ones. I go straight for Goty, an adorable ram with huge eyes, and Pycko, a red gecko with big, round cheeks. My seemingly impractical strategy ends up working out for the best, as I learn that these two cuties evolve into Mouflank and Drakash, which are two pretty badass Temtem. They've become a very welcome addition to my squad.

MONSTER MASH

With the new Temtem in tow, it's time for some battles. Kisiwa has its own specialized dojo and this one's gimmick is its multi-layered quicksand labyrinth. Alongside the dojo, you'll have your regular run-ins with the shady Clan Belsoto, this time led by General X, and if that name doesn't scream "I'm evil" then his intense glare and thick, pointy moustache will definitely do it.

Everyone's favorite rival Max returns, and despite my countless defeats against him still stinging, I'm please to see him as he once again destroy my team. Once a friendly rival, these days he feels like a full-on arch-nemesis.

Battles are as spectacular as ever, with Crema adding even more epic animations. Seeing your Temtem's attacks completely demolish the opposition with an attack that pulses with chaotic energy is one of my favorite things about Temtem. It just takes those intense battles to the next level, and it's great to see Crema crank that notch up yet again. With the level cap being raised from 48 to 58, your starter Temtem can now reach their final forms and unleash new brutal attacks with a huge amount of animated flair.

Another new feature to *Temtem* is player housing, which acts as your very own space to decorate as you please. I love choosing furniture for my cosy home, but the quest to get your own place is a real chore—I would have preferred a crippling mortgage than a wild goose chase. But settling into my cushy bungalow was worth it in the end, and I can

ANOTHER NEW FEATURE TO TEMTEM IS PLAYER HOUSING

now invite all my friends over and show off my amazing house... which currently consists of a rustic stool, a floor lamp, and four bare walls.

Crema has also improved *Temtem*'s MMO features, introducing a club system that acts similarly to factions and guilds. It's still in its early stages, but members of a club can create their own logo and have their own private chats. For now, it only has social purposes, but Crema says that there will be more updates in the future. I'm hoping for club vs club battles.

Crema has plans for two more content updates during the Kisiwa cycle, with access to other parts of the island currently in the works. Although future updates have unfortunately been pushed back (due to the pandemic), Crema is still planning on a 2021 release. Regardless of these delays, *Temtem* continues to be an impressive alternative to *Pokémon* and there's plenty of stuff to get stuck into in its current state. And when you're done with that you can return to spending an ungodly amount of hours leveling up your squad like I am. ■

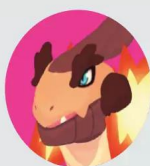
AWW TO AHH!

My favorite new Temtem evolutions



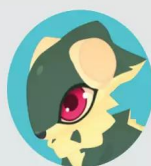
PYCKO

A gecko Temtem with chubby cheeks that make it perfect for a cuddle.



DRAKASH

A fierce dino with sharp teeth and explosive attacks. Hugs not advised.



GOTY

A tiny goat with mesmerizing—if slightly sinister—pink eyes.



MOUFLANK

Basically a pair of angry horns with legs. Does not like pats on the head.

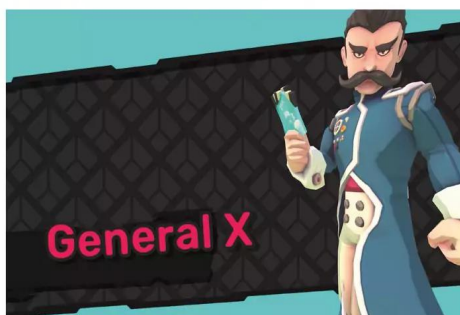
If you go down to the woods today...



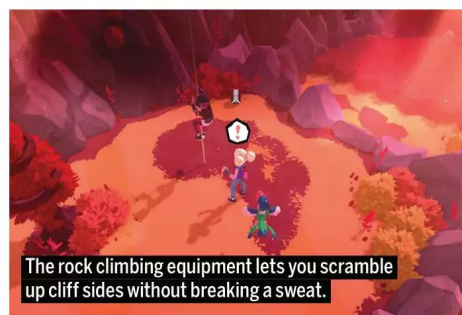
Defeating a Temtem with this amount of oomph should be illegal.



General X



The rock climbing equipment lets you scramble up cliff sides without breaking a sweat.



This is Airborne Archipelago house goals.



Play with your ruler's height, weight... and hairiness.



CRUSADER KINGS III

The best ways to customize the rules. *By Chris Livingston*

You know that *Crusader Kings III* is here, and it's great. Paradox Interactive's medieval strategy game is sprawling and engrossing, and contains endless possibilities—but that's no reason not to add a bunch more. Modders have been busy tinkering with *CKIII* almost since the moment it arrived in September, and there are already lots of fun ways to customize both the rules and the rulers.

One of the most enjoyable changes in *CKIII* is the character portrait system. Portraits looked great in *Crusader Kings II*, and as you aged or were wounded you'd see those changes reflected in your character's picture like a medieval Dorian Gray. But those portraits were small, static images, and in *Crusader Kings III* they're bigger, far more detailed and, best of all, animated.

As attractive as we get to our characters, it would be nice if the game let you see them up close and take some fantastic pictures to remember them by once they've died, been poisoned, assassinated, executed, etc. As attractive a game *CKIII* is, it's hard to get a good look at your characters, but thankfully, several modders jumped in and did it for us. One of the main focuses of a number of mods has been to expand and improve on the game's portraits.

BITE NIGHT

One of the best ways to make your characters look more interesting is to make them more interesting in general. As in, supernatural. *Princes of Darkness* is a full conversion mod for *Crusader Kings III*, and it does way more than just let you look like a vampire. *Princes of Darkness* is based on World of Darkness, the same fictional universe from *Vampire: The Masquerade*, and many of the rules, customs, lore and factions from that universe are included in the mod.

I haven't played a lot with *Princes of Darkness* yet, but it's already been pretty eventful and incredibly fun. As a 1,116-year-old vampire ruler in Italy, with a centuries-old son who looks like a disgusting, decomposing ghoul acting as my spymaster, I began uncovering the secrets of all the other vampires in my realm. Not just their regular secrets, like who they're

AS ATTRACTIVE A GAME *CKIII* IS, IT'S HARD TO GET A REALLY GOOD LOOK AT YOUR CHARACTERS

sleeping with and who they're plotting against, but their vampire secrets. It's pretty weird to be a vampire blackmailing other vampires about being vampires, and it feels like everyone would know who the vampires are anyway since many of them are so old and creepy-looking.

On the plus side, there's a great way to deal with any mortals who discover you drink blood and threaten to go blabbing about it: Drink their blood before they go blabbing about it. You've gotta feast on the living anyway, so you might as well feast on your enemies.

Best of all is the rampant vampirism is reflected wonderfully in the character portraits. Turn someone into an immortal vampire, and they'll really look like one, with



Don't just act like a vampire, look like one.

FULL CONVERSION *Mods for CKII we hope to see in CKIII*



GAME OF THRONES

We all want to rewrite the crappy ending to the show with our own story.



AFTER THE END

Set in 2666 post-apocalyptic America. We're headed there anyway, right?



THE ELDER KINGS

The Elder Scrolls mixed with *Crusader Kings*? Yes please.



THE MIDDLE EARTH PROJECT

I married Shelob, it was better than most marriages.



WARCRAFT: GUARDIANS OF AZEROTH

Take a break from *WoW* and get some more *WoW*.

gaunt bodies, glowing eyes, and even fangs. I'm probably not going to be a very good ruler, and I imagine someone will wind up driving a stake through my heart at some point, but so far I'm having fun with the mod.

FUZZY LOGIC

Even if you're not into the vampire scene, there are ways to have fun with your characters' appearances. The *Fullscreen Barbershop* mod really lets you bring your characters to life. There are all sorts of sliders to play with so you can create any kind of portrait you're after, and when you're done you can hide the UI and take full-screen pictures. You can change the background to reflect different throne rooms from different cultures, and even turn on backlighting so your character stands out. You can choose from a long list of poses, too, which not only change how your character is positioned, but also their facial expressions. Anger, fear, confusion, insanity—there are dozens to choose from, and they're all animated.

Another drop-down menu in the mod lets you fiddle with their clothing. Again, you can choose outfits and styles from other cultures, wear whichever crown or headdress you feel best suits you, and change your character's hairstyles and beards. And *Fullscreen Barbershop* isn't just for your ruler: a click lets you add your spouse and heir to the portrait, then select their poses and even move them around on the portrait screen. Don't let your dynasty be forgotten—make sure you get a great portrait before the years slip by and everyone gets assassinated or imprisoned, or dies of some terrible affliction. And don't forget to click the Apply Changes button if you want to save your changes, otherwise they'll be reverted to their defaults when you keep playing.

Meanwhile, the *Barbershop for Everyone* mod lets you style and pose not just your immediate family, but other characters in the world as well. I don't quite have the same interest in posing and taking pictures of characters I'm not playing, but it still can be fun to play dress-up with the pope, or make the king of England dress in prisoner's rags.

Changing someone's hairstyle and clothing is enjoyable, but those changes are just cosmetic. If you're looking to tinker with your ruler's actual body, the *Character Physical Modify* mod does just that. It adds a

new customization drop down that will let you quickly make your character taller or shorter, heavier, or thinner, more muscular or weaker. And there's also an option for making your character's bosoms larger or smaller, and one to increase or decrease the amount of body hair for male characters. With all of these options, I have a hard time focusing on the actual game. I spend hours tinkering with the portrait tools.

SELF IMPROVEMENT

The options of those mods, plus thousands of playable characters in *Crusader Kings III*, give you a ton of



YOU'LL DEFINITELY FEEL LIKE THIS NEW CHARACTER IS TRULY YOURS

flexibility, but it's still difficult not to want to design your own ruler from the ground up, rather than just slip into the life of some existing character, Quantum Leap-style. SarcFa's *Custom Ruler Designer* gets pretty close to giving you a completely blank slate to work with, letting you tailor a completely original ruler to craft to your liking before you begin playing.

Using the mod you're given a series of choices—pick your character's sex, their physical traits, details about their health, age, culture, sexuality, religion, and so on. There's a huge list to pick from in these categories, including physical traits. It's not a complete character creation tool—you won't be adjusting sliders to determine how your new ruler looks. But you can still take control of a lot of their attributes, and you'll definitely feel like this new character is truly yours.

Not every mod is about customizing your character, and there are several that enhance the game in subtle ways. *Very Immersive Events and Tales (VIET)* adds over 200 new events and situations to your game. Conversations with courtiers, little moments of intrigue and discovery, and everyday happenings that won't rock your world. After a few games of *Crusader Kings III* you might grow weary of some of the vanilla events, so this is a great way to spice up your campaign.

And finally, there's one more great mod. As you play *CKIII* you'll occasionally run into a decision event that seems pretty simple: You're given the opportunity to adopt a pet. Not exactly earth shattering stuff, though in one game my wife was allergic to my cat, and I basically had to choose between her and Mr Whiskers. Let's just say, someone went to prison, and it wasn't my cat.

Pets not only are nice to see in *CKIII* but, they have some interesting side-effects. Once, my cat found a scroll, which turned out to be a letter from one of my court members, revealing they had a secret lover. My own cat, performing espionage—I couldn't be prouder. My dog once brought me some coins it found, increasing my treasury by ten gold. What a good boy! And even just stroking your pet's fur can act as a stress reliever, which can be pretty important in *Crusader Kings III*.

So it seems a bit like cheating, but the *Cat, Dog, & Horse* mod doesn't leave adoption up to chance. It adds an option to your decision list so you can acquire a pet whenever you wish, which makes sense. The ruler of a country wouldn't have to wait around for a dog or cat to wander into court, they'd be able to send some lackey out to get them one anytime they wanted to. I feel like this mod just makes the choice of adopting a pet more realistic. ■

IT'S A NUMBERS GAME

Official stats reveal how we've all been acting since the game launched

1,000

Prison escapes

176,000

Stress breaks needed

1,400,000

Holy Wars started

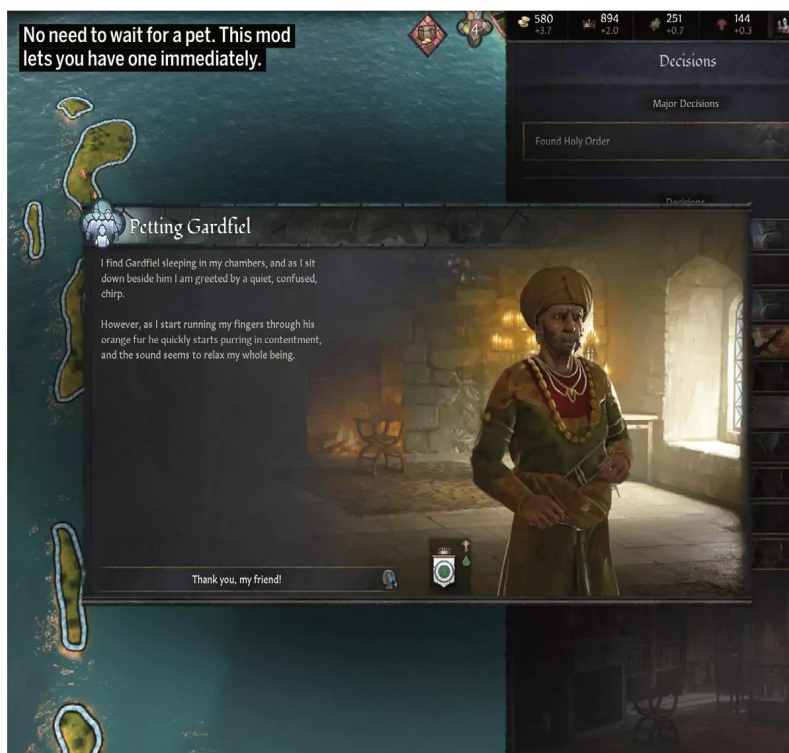
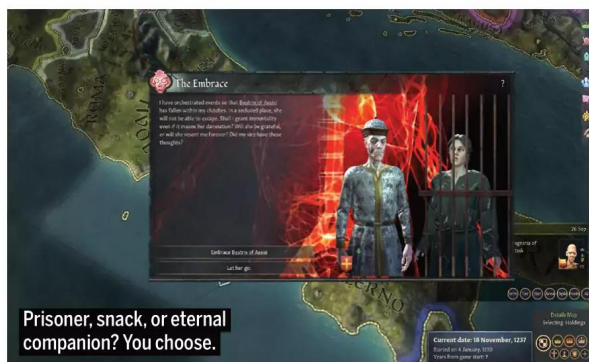
1,500,000

Prisoners cannibalized

18,000,000

Successful murders





Create Faiths in CRUSADER KINGS III

Traditional Christianity or Islam not your thing? Then make your own religion. *By Harry Shepherd*

NEED TO KNOW

DIFFICULTY
Medium

TIME
Four hours

VITAL LINKS
Beginner's tips:
bit.ly/2RmDYZx

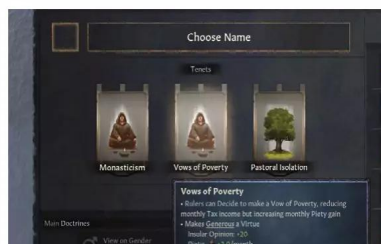
Religion guide:
bit.ly/35v06aB

Console commands:
bit.ly/35A1OLW



DOCTRINE HEIR

1 If you want to create your own Faith, you'll need to settle on 14 Doctrines. Put simply, these are a code of conduct: They determine what is legal and forbidden in terms of gender, marriage, and crime, so choose them carefully.



ONE WORD, TENET

2 As the key traditions of a Faith, Tenets define religions against others. Some are only available to custom Faiths and your parent religion, so choose carefully as you select the Traits seen as sinful and virtuous in your new Faith.



THE REFORMATION

3 You can preview your new Faith at any time, even if you don't have the resources yet. Near your current religion's Tenets and Doctrines, click the 'Create New Faith' button to investigate the cost of your new Faith.



PIETY PARTY

4 That said, chances are you won't be able to actually convert at this stage. You'll need something called Piety, more than all but the most pious rulers can achieve in a lifetime. But, God-fearers, fear not: Continue for some holiness pointers.

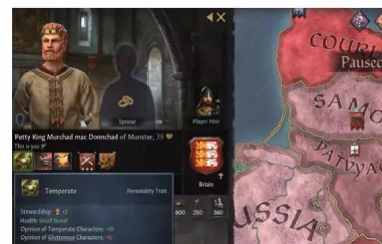


HALF TIME

5 Select the Learning lifestyle and unlock the Prophet perk to halve the Piety cost required for custom Faith creation. It's found in the Theologian tree. Keep the Theology focus active for monthly Piety bonuses.

HOLY SMOKES

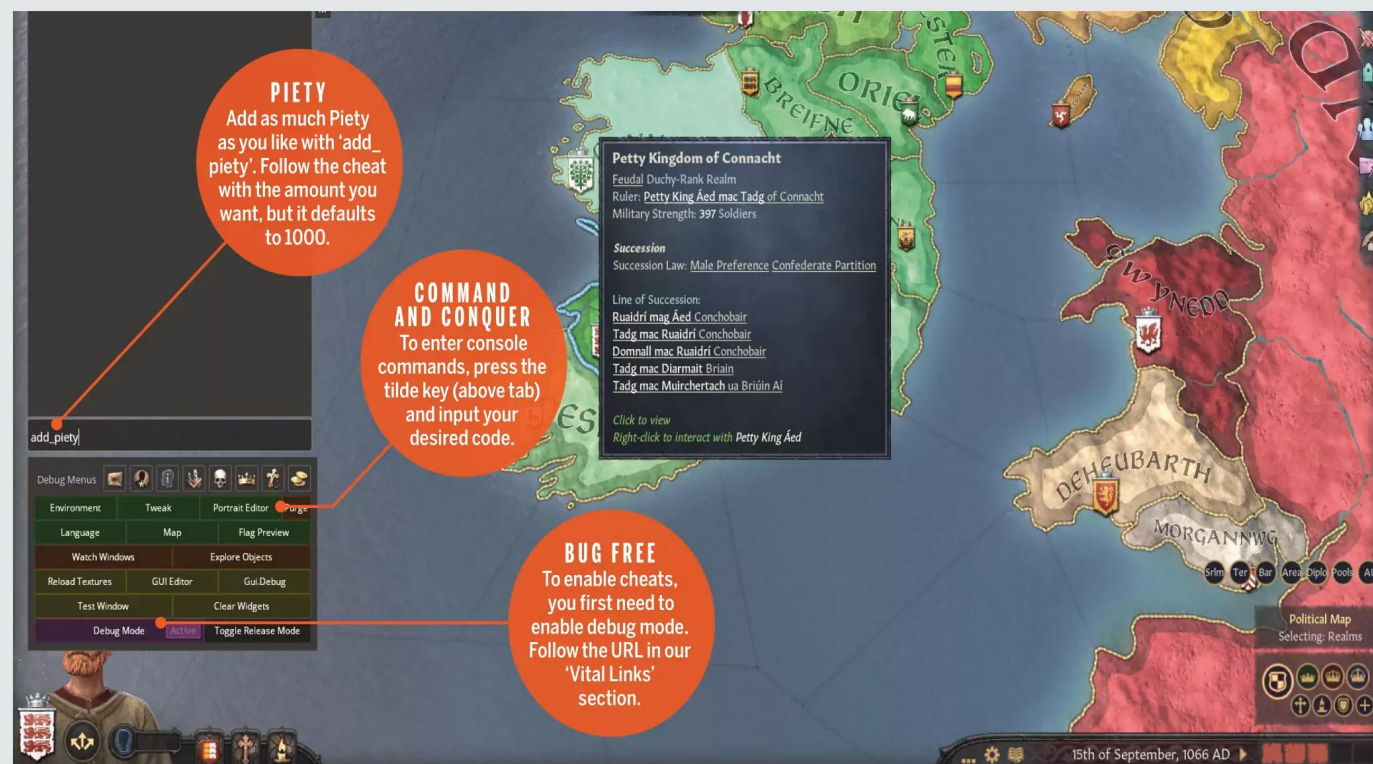
6 Continue towards righteousness by surrounding yourself with clever folk. Marry someone and appoint a priest with a high Learning stat for more Piety and to boost your chances of others converting with you.



GOOD CHARACTER

7 It also helps if your character has some virtuous personality traits. These can be earned through in-game events or gained during your upbringing. Characters can have up to three Traits—Zealous is especially valuable for Piety.

COMMANDER-IN-CHIEF *Get all Piety you need with console commands*



DIVINE INTERVENTION

8 Each religion has Holy Sites, and having them under your dynasty's control gives you bonuses such as extra combat power, boosted stats, and more tax revenue. Show your dedication by making regular pilgrimages to these spots.



MONEY TALKS

9 Slings the Man/Woman/Snake God upstairs some silver never hurts. Donating gold and troops to holy wars will certainly make the church look more kindly on you, and you'll get a cut of the proceeds in the event of victory, too.



BEGINNER HERETIC

10 If you're struggling to amass the Piety you need to create the cannibal cult of your dreams—sorry, divine visions—ease yourself in with a custom Faith not far from your parent one: Familiar Tenets will cost less Piety.



BLASPHEME TUNE

11 Check whether your vassals are receptive to it—you can see their current Fervor at the top-right of the Religion tab. The lower it is, the easier it'll be for your citizens to accept a change. Otherwise you could have a rebellion.



HOUSE OF GOD

12 When you're ready, unleash your new Faith on the world. You and your capital county will automatically convert, and you can decide to be the head of the Faith, or pull the strings from the shadows.



TRYING TO
BE JUST AND
PIOUS IN

CRUSADER KINGS III

PART I

Forget you sheeple, I'm going to
be the good guy. *By Luke Kemp*

THE RULES

- 1 Strive to be noble and just in all decisions.
- 2 Treat everybody I come across with civility and respect.
- 3 Punish any and all un-chivalric behavior with appropriate zeal.

Yes, yes, I know, I know. *Crusader Kings III* is a game that practically begs you to be cruel, self-serving, and just generally evil. But I'm going to lean hard into the alternate history angle, and try to avoid falling over. What if, unlike the real medieval leaders, I really was a king that had everybody else's best interests at heart? Was all that aggression and backstabbing really necessary in the grand scheme of things? Can't we all just get along?

I decide to jump into the Anglo-Saxon shoes of King Harold II. Taking stock of my situation, I realize that I haven't exactly made things easy for myself. I'm already at war with both King Harald IV, and Duke William II 'the Bastard'. In terms of family, my parents had eight children including me, because Netflix hasn't been invented yet. My brother Tostig hates me so much that he's my nemesis. He's clearly far beyond my powers of persuasion, which makes me very sad.

My mother, I'm shocked to find, has a slightly negative opinion of me. I don't have this problem with my dad, although this is, admittedly, because he's dead. What to do? I turn to the church's teachings, something that I'll be doing a lot of in my mission to be pious and just. It's right there in the ten commandments, innit? Honor thy father and thy mother. So I honor her with some cash, and thankfully, she's shallow enough for this to make her (very slightly) love me again.

I'm under attack from powerful armies, I'm living in a world of greedy, violent monarchs, and I want to be sure that I always make noble decisions. I need God on my side. Therefore, I go for a Learning lifestyle, and start building up the Theology tree straight away. Next, I check out my relationship with the pope, Robin to God's Batman. He has a very slightly negative opinion of me. That won't do at all! I start a scheme to sway him, hoping to help him appreciate my many lovely qualities.

GOD MORNING BRITAIN

I hope my plan to get God fighting in my corner works out, because things start to go downhill. You know, even more than they already were. I discover that half my council hates me, and four enemy allies jump into the war

in quick succession. Worse than all of that—much, much worse—I discover that I am cheating on my wife. I have become that which I hate the most, an unchivalrous cad! The first I hear of my unfaithfulness is when one of my vassals tries to blackmail me over it.

I decide to make the best of a bad situation, refuse the blackmail, and come clean. I'll be best pals with the pope soon anyway, loads of forgiveness points in the bank for that. Therefore, my affair is exposed, my wife's opinion of me plummets an understandable amount, and my devotion level drops because I gain the trait 'adulterer'. Wait, I didn't already have that? It's only adultery if you

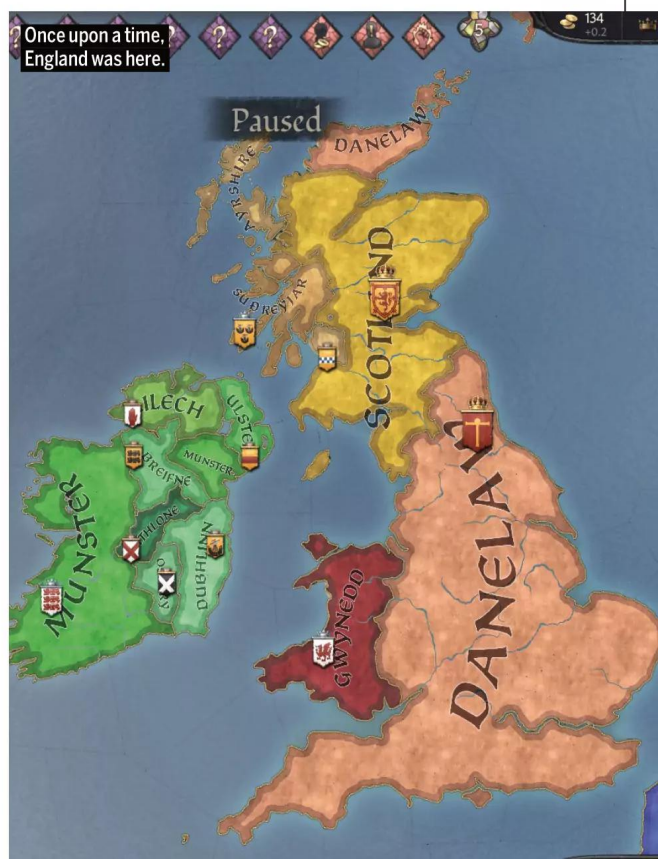
get caught? I guess this is an educational game after all. I do manage to scrape together the shards of my reputation by immediately leaving my lover for my wife, who seems to forgive me instantly. I love that woman.

More bad news, as I am informed that my heir is not of my dynasty. Before I can make sense of this, Aeldgyth (I congratulate myself on finally remembering the name of my wife) announces that she is pregnant. I guess she really did forgive me. Nine months or so later, our son Eustace pops out. We add him to the pile of children, now numbering six.

There's little time for celebration though, as the invading armies—vastly superior to my own—are making huge gains. But wait! The pope is finally swayed, and now has a healthily positive opinion of me. Huzzah! Now I can relax, as being in God's good graces will save me and my realm. I'm free to concentrate on making good decisions, looking after my subjects with love and care.

At least, I would have been, had I not been presented with a Game Over screen shortly afterwards. Perhaps

I HOPE MY PLAN TO GET GOD FIGHTING IN MY CORNER WORKS OUT



A BRIEF HISTORY OF KINDNESS *The most momentous events so far*

1066 King Harold II pays his mother to love him.	1067 King Harold II learns he is an adulterer.	1069 King Harold II loses his entire kingdom.	1072 Jarl Isleifur's first child with his new wife.	1074 Jarl Isleifur learns astral projection.	1075 Jarl Isleifur becomes very pious and very poor.
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➤ God's not all he's cracked up to be. It's 1069, and although I don't die, I am landless due to the total annihilation of my armies, ruining me and my entire family. On one hand, King Harold II cheated death by my playing the good guy, as the real one died in 1066. On the other hand, I managed to run the entire kingdom of England into the ground in less than three years. This is why, in the real world, my wife bids a tearful goodbye to our children each and every time she is forced to leave them in my care.

KING HELL

Oh well. Second time lucky? While I'm initially distraught to find that I'm not allowed to play as the pope, I come to accept that this would break the game, as I'd literally be playing in God mode. Instead, I look north—far north—and settle on medieval Iceland (i.e. the functionally, but accurately, named 'island'). Not currently at war, and too out of the way to be invaded unless I *really* annoy somebody. This will go much better... surely?

Temporarily swerving the beliefs of my Catholic faith (lucky I had all those banked pope points), I possess the body of 63-year-old Jarl Isleifur. His ready-baked traits mean he's a fellow Catholic and, while wrathful, is also diligent, and just generally does his own thing. Seems like a good starting point to me.

Time to take stock again. The pope has an even more negative view of me now than when I first played as

Harold II, so I start a new sway scheme. I continue trying to woo God by sending a gift to my bishop, who promptly endorses me as a result. Great!

Given my advanced (certainly for the time) age, I need to ensure my legacy is preserved, so I swiftly marry off my only child Teitur to my spymaster, Rögnhildr. Unmarried myself, I decide that I want to live out my final days with a companion, so I marry the lowborn—but good natured—Caisséne. I do not collect gold from my subjects for the wedding, diving straight into the 'be a lovely chap' vibe.

My wife becomes pregnant almost immediately, and then, a traveler named Yosi arrives. I ask him to join my court on condition that he accepts our lord God into his heart. He gladly accepts. I've barely begun, but I've already brought my son and I into wedded bliss (with other people), I've had a chance to publicly demonstrate how nice I am, I've got a baby on the way, *and* I've made a new friend. It's much better here than in England!

JARL BE MINE

We hold a wrestling tournament, and I find my friend Yosi there bored out of his mind. Working on the assumption that "spend some time with Yosi under the pavilion" isn't a euphemism for impure activities, I select this option to have a chat with him, because I want to be a good friend. I want to be a good man generally, of course, so when the game informs me that I'm able to ask the pope for gold, I choose not to do so. I'm not going to bother the best friend of The Man Upstairs for money.

In October 1070, my son is born. I name him Isleifur, after me, as a living reminder to my wife not to remarry after my death. I then receive my first piece of bad news: My bishop has died of old age. This is terrible! I sent him that money for nothing! His replacement refuses to endorse me, but I'm not bashing my bishop with money again, just in case. The pope is not yet swayed, so I continue this scheme rather than trying to befriend my bishop. Papal approval didn't help me in my previous life, but perhaps that was just because I received it too late.

Bandits are now running rampant in my realm thanks to the poor skills of my marshal, who I fire and replace with my pal Yosi. Make me proud! Speaking of friends, I have an opportunity to advance my scheme on the pope when a commoner of Italian descent is accosted for some minor offence. I agonize for a while over this. Bad deeds must be punished, but then, I could do with getting the pope onside sooner rather than later. I'm now 65 years old, and I don't look a day over 80. I decide to speak out in favor of the commoner to try and gain favor with the pope's friend King-Bishop Alexander. On balance, I can bring much more good into the world if I'm still alive.

Another child is born to me, which comes as a surprise, as I wasn't aware that my wife was pregnant again. A daughter this time, who I dub Patricia. A good Catholic name, just in case—you never know what might earn you more pope points.





TOXIC CRUSADERS

Suddenly, awful news! I receive word that Duke Halfdan of Mercia and his vassals have abandoned Catholicism for Iconoclasm. Naturally, I resist the temptation of this heresy, and consider how best to address it. The most sensible thing seems to be to begin an eight year plot to abduct Halfdan, so that I can teach him the error of his ways and save his soul. So that's what I do.

The pope now likes me! Not much, but a win's a win. I find that my vassal Count Sigfus doesn't like me very much, though, so I start a new scheme to sway him too. I start to win him over, but not before I'm informed that I have bandits running throughout my realm once again. Oh Yosi, you silly medieval sausage! Can't you do anything right? I decide to find him a wife with high martial (and, hopefully, marital) skill, perhaps she can teach him a thing or two. I am, I would hope, invited to the wedding and made best man.

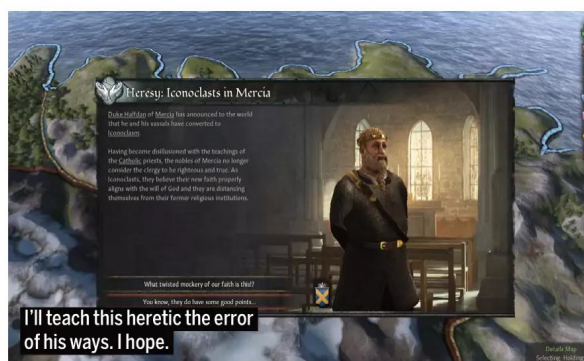
I HAVE BANDITS RUNNING THROUGHOUT MY REALM ONCE AGAIN

With my friend Yosi in loving hands, and my wife having a break from giving birth, I decide to go on a pilgrimage to Jerusalem. I hoped that this would make me more wise, just, pious and enlightened, but things start to get a bit weird. I visit Sigfus, and notice a few things I might be able to help him with in order to endear myself to him. Which is fine... but I'm simultaneously halfway

around the world on my pilgrimage. Have I mastered the art of astral projection? This seems like kind of a frivolous use of my supernatural powers.

Nevertheless, desperate to be the wise, loving and loved ruler of island, I try my best to help Sigfus secure and tidy his place. However, like a

Middle Ages Michael Scott, I just manage make things worse, and lower his opinion of me even further. I somehow return from my lengthy pilgrimage *after* this, presumably in God's good books but now deeply in debt. My quest to prove that nice guys don't have to finish last continues... ■

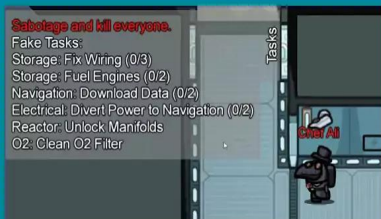


BEING THE IMPOSTOR IN AMONG US

'Acting kinda sus' is my new favourite way to be. *By Alistair Jones*

Sabotage and kill everyone.

Fake Tasks:
Storage: Fix Wiring (0/3)
Storage: Fuel Engines (0/2)
Navigation: Download Data (0/2)
Electrical: Divert Power to Navigation (0/2)
Reactor: Unlock Manifolds
O2: Clean O2 Filter



RIGHT: One down, still a few more to go.



All I know is that it can't be Ali," my friend pipes up during an Emergency Meeting. "He's been with me the whole time, he definitely could have killed me if he was an impostor." Since I actually am an impostor, his espousal of my innocence is ideal. Thanks to this, I'm able to pick off other players, the burden of guilt not falling on me even after I stab my naive companion in the back three rounds later. As the end screen reveals my role and his fury erupts through my headphones, I can barely stop myself from rubbing my hands with malevolent glee.

Among Us riffs on the success of social deduction games like *Secret Hitler* and *Werewolf*, in which the good guys attempt to root out a murderous minority before the latter can outnumber and overpower the former. In these games, where innocence and guilt are two sides of the same coin, bare-faced bluff is, more often than not, a key tactic. What makes being an impostor so special, however, is that your ability to lie to someone's face is just one aspect of a successful sabotage.

Bending the truth is important—you won't get far if you can't spin a good alibi out of thin air when challenged. But while that might be all you need in tabletop games, in *Among Us*, the impostor's role goes deeper than the lie. It's a detailed charade, a performance of innocence to sow uncertainty, confusion, and paranoia as your prey realize they're running out of time and they're still no closer to rooting you out.

It's not just about choosing who to kill, but about making sure you

NEED TO KNOW

RELEASED
November 16, 2018

EXPECT TO PAY
\$5

OUR REVIEW
N/A

LINK
innersloth.com

MAKING A MURDERER *What type of impostor are you?*



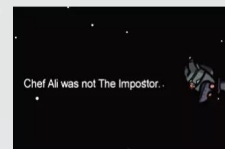
THE SERIAL KILLER

Ever called an emergency meeting only to find half the crew already dead? The Serial Killer isn't interested in stealth—they just want every crewmate dead.



THE FALSE FRIEND

They do tasks, fix sabotages, and back you up in meetings. Then once you think you're safe, The False Friend puts a knife in your back (and your heart).



THE GRANDMASTER

The Grandmaster plays *Among Us* like a game of chess, manipulating the group into sealing their own fate with a single, well-placed accusation.

hands are thought to be as clean as possible for as long as you can. Committing a murder is easy, but doing so without any witnesses can require split-second timing—there's nothing better than cutting someone down just outside another player's field of vision, or ducking into a vent just before your fresh kill gets discovered, and then sitting quietly during the investigation without the finger of blame ever pointing at you.

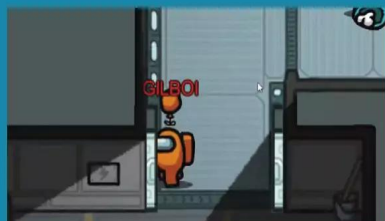
IN AMONG US, THE IMPOSTOR'S ROLE GOES DEEPER THAN THE LIE

But the deceit goes deeper. No murder goes undiscovered forever, so fabricating an alibi is crucial. Not being found holding the smoking gun isn't enough—plenty of schemes have been undone by crewmates who find an impostor sprinting away from a corpse. To counter these post-assassination run-ins, my preferred strategy is to find someone else to stumble across the body with me, who will then attest that I can't have been anywhere near the kill. Even more devious is self-reporting—cutting someone down before sounding the alarm yourself—a tactic that's even more effective if you can pin it on an unfortunate crewmate.

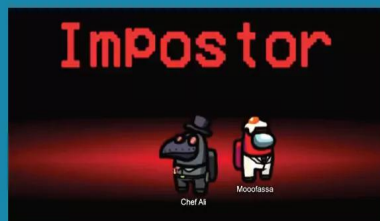
TIME TO KILL

The impostor's performance isn't just limited to the moments on either side of a kill. From the beginning of each game, you have to blend in with the crowd, making sure you act as though you're just one of them. Plotting out a route through the map and play-acting your various tasks in such a way that you don't arouse suspicion is as crucial a skill as the perfect knife in the back. Even more useful is the ability to herd players from one area to another, sabotaging the oxygen supply or electrics to force a quick repair, pulling prying eyes away from the place where you've just left a body before rushing to ingratiate yourself with the remaining crew.

Genuine innocence has its own perks. Catching someone standing over a corpse provides its own special twinge of satisfaction. But being declared impostor offers an unmatched thrill. *Among Us* is a simple game, but there's enough complexity that being the bad guy can turn you into a puppetmaster, manipulating your playthings into doing most of your dirty work for you, a well-timed kill and a vague accusation enough to spark an argument that'll see another innocent sentenced to death and me another step closer to success. Fair play be damned—as long as I end up on that end-game victory screen, I'll do whatever it takes to win. ■



RIGHT: Accusations can sometimes reveal the truth.



I didn't expect this to rocket to the top of my favorite RTS games



WARHAMMER 40,000: DAWN OF WAR

The real king of the RTS genre. *By Steven Messner*

It's a tragedy that *Warcraft III* got an HD remaster—albeit a half-assed one—but if I want to play *Warhammer 40,000: Dawn of War* I need to download widescreen hacks and an app just to remap the controls and get it into a playable state. Blizzard's seminal RTS no doubt deserves all the praise it gets, but all these years later *Dawn of War* feels like the strategy game that really pushed the genre into new and interesting spaces. It's not just the glorious, violent battles that erupt constantly across each mission, but the way *Dawn of War*

cleverly trims the fat to create a strategy game that feels innovative and exciting even 16 years later.

I didn't appreciate that the first time I played it, though. For most of my life, I had chugged Blizzard's kool-aid and assumed Warhammer was a cheap knock-off for grown men who like gluing things together and spending \$30 on tiny vials of paint with ridiculous names like Runelord Brass. But if you read last month's Reinstall, you'll know that James and I both recently decided to read some Warhammer 40k novels for the first time, and instantly became converts. That naturally meant I had no choice

but to consume all Warhammer media I could possibly find, and with *Dawn of War* and its expansions sitting in my Steam library, it was a natural place to start. I just wanted something to tickle my fancy for this new universe I suddenly developed an appetite for—but I didn't expect this to rocket to the top of my favorite RTS games.

RIP AND TEAR

First released back in 2004, *Dawn of War* follows a chapter of Space Marines called the Blood Ravens as they work to delay an Ork 'WAAAGH!' (40k parlance for 'unstoppable invasion') while the last human inhabitants of Tartarus regroup and flee the planet. Once Chaos Marines and Eldar start getting involved, though, the whole operation goes sideways as ancient demonic artefacts whisper betrayal and an impending warpstorm—

NEED TO KNOW

RELEASED
September 20, 2004

DEVELOPER
Relic Entertainment

PUBLISHER
THQ

LINK
bit.ly/36COuEG





» basically an evil space hurricane—threatens to trap everyone on a planet overrun by Orks and demons.

That *Dawn of War*'s story manages to be this interesting decades later is a testament to how fun it is despite being so thoroughly incapable of nuance. Like many of the novels, its plot twists are seen coming miles away, but I don't care because I'm too enchanted by the stoicism of the Blood Ravens captain, Gabriel Angelos, and his too-wise-for-his-own-good Librarian Isador. A lot of it is buoyed by the voice acting, though, which manages to somehow bring a bit of life to a group of super-soldiers who are only capable of feeling either righteous indignation or anger.

You don't play *Dawn of War* for the story, though. You play it to gleefully watch a crab-like Chaos Marine Defiler wade into a group of Space Marines, pluck one up with its enormous mechanical claw, and toss his crumpled body half-way across the map. I feel like it's moments like this that are missing from other RTS games of that era, especially *Warcraft III*. There's almost a kind of disregard for the spectacle of watching giant fantasy armies clash in battle. Units

just hit each other with the same attack animations until one dies.

Dawn of War relishes in the violence. Every unit has bespoke 'sync kills' that trigger when they deal the killing blow against an enemy. When the Eldar summon the Avatar of Khaine in the seventh mission of the base campaign, much of the reason it's so terrifying is not just because it takes half an army to kill. It's terrifying because again and again it'll impale Space Marines on its sword and hoist them upward so that gravity slowly pulls them further down onto the sword amid gouts of blood. Often I'm so caught up with zooming in and rotating the camera to watch the carnage that I forget to feed my units new orders. I just want to soak it all in.

It's a system that only works because *Dawn of War* uses a unique squad system where individual units are actually composed of up to nine soldiers who act in unison. It's such a great deviation from the standard RTS formula where a single soldier represents a single unit, not only because it adds some significant layers of strategy—like being able to purchase weapon upgrades for

EXPANDED UNIVERSE

Dawn of War's three expansions, ranked



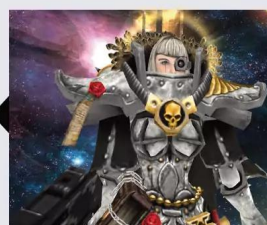
DARK CRUSADE 2006

Adds an incredible sandbox campaign mode with RPG elements and two new races: The techy Tau and the creepy robot Necrons.



WINTER ASSAULT 2005

Tough-as-nails campaign where you often swap between two different armies mid-mission, tons of new units, and a cool new faction.



SOULSTORM 2008

Too ambitious for its own good, but still added two unique factions and aerial combat. You could probably just skip over it, though.



IT'S JUST A SHAME THAT RELIC HASN'T FOUND A WAY TO UPDATE THE BASE GAME

individual members of a unit or reinforce your damaged units with fresh recruits—but because it also adds a lot more meat to the grinder.

That's not the only innovation that makes *Dawn of War* still relevant today, however. It also disposes with the resource collection systems that I've come to despise in games like *StarCraft* only because it's so fiddly. It's not fun having to constantly micromanage whether or not my worker units are accessing the right resources back at base instead of pushing deeper into the map and watching fights break out.

TAKING CONTROL

Instead, resources are earned by spreading out and grabbing control points. Even by today's standards, it's such a genius evolution because it directly ties combat to your overall wealth and economy—especially in multiplayer,



where players are actively working to defeat one another. There's no option to just turtle up inside your base and wait for players to come to you because you'll also be starving yourself. You have to be aggressive.

Obviously that kind of playstyle makes perfect sense in the Warhammer universe. Hell, even the opening cinematic for *Dawn of War* shows an entire squad of Blood Ravens getting decimated by Orks while trying to take a control point seconds before an army of Space Marines arrives to save the day. They could've just hunkered down and waited, but that's not the Space Marine way. That kind of wanton disregard for the individual sacrifice so long as it translates to increased control of the map infuses *Dawn of War* with a brutality you just don't see in other similar RTS games.

It's just a shame that Relic hasn't found a way to update the base game to run better on modern hardware. While the second expansion, *Dark Crusade*, introduces support for more wide aspect ratios, *Dawn of War* can only handle 1920x1440, which creates borders on the left and right of the screen and noticeably

cuts down on how much you can see on the map. There's a widescreen fix, but it warps the size of the minimap so that it no longer fits within its borders, effectively cutting off pieces of it from your view.

I can deal with that, though, but it's enormously frustrating that you can't even bind certain keys. I didn't even know that there was a pause button until a friend mentioned it, but it's bound to the Pause key, which I don't have on my smaller keyboard. My only option was to download a program called AutoHotKey, which can rebind keys at a system level.

It's why I wish *Dawn of War* could get a remaster of its own. The ideas and systems holding this game together feel as subversive and exciting today as they probably did back in 2004. And even though the graphics aren't great, it doesn't take anything away from the thrill of *Dawn of War*'s bloody battles. It's just a shame that a few technical issues can make returning to Tartarus a little annoying. Even so, it's easy to look past those moments when you're wrapped up in the intensity of a skirmish or playing through the surprisingly good story campaign. ■

PHIL SAVAGE



The reason *Apex Legends* isn't on this list is because my crew was so disappointed by the changes to *World's Edge* that we stopped playing entirely. Also the matchmaking is bad. Consider yourself told Respawn.



PERSONA 4 GOLDEN

bit.ly/p4gpc

→ Lead a party of teens as they attend classes, form friendships, and visit a mysterious TV world filled with monsters that take influence from mythology and the writings of Carl Jung. The *Persona* series offers a stylish and compelling spin on JRPG tropes, and also challenges you to eat a very large beef bowl.



DESTINY 2

bungie.net

→ Kudos, Bungie. The audacious plan to remove a bunch of locations and activities from *Destiny 2* with the release of its next expansion gave me the hard deadline I needed to gather up some friends and complete all the raids. And while *Destiny 2* is an oft-frustrating experience, the raids themselves are pretty great.



TEAMFIGHT TACTICS

teamfighttactics.leagueoflegends.com

→ I wouldn't say that I was good at *Teamfight Tactics*, but I do sometimes win. Those wins rarely feel tactical: I decide I'm going to try out a build, and sometimes I bumble into something that works. Still, you can place down some heroes, watch them sling spells at each other, and chat with your friends. It's chill.



MYSTERIUM

bit.ly/mysteriumpc

→ A digital boardgame in which one player is a ghost, giving hints to investigators in the form of abstract pictures meant to represent the person who killed them. The ghost only has a handful of cards to pick from, and the joy comes from figuring out what a picture of a cat in a top hat is supposed to mean.



AMONG US

innersloth.com

→ Much like *Mysterium*, *Among Us* is a game about being muted on a Discord server, shouting about how incredibly stupid your friends are being for not realizing identity of a murderer. *Among Us* broke big on Twitch, and is the reason your child now declares that everything is 'sus'. It's well worth trying out yourself.



A MONSTER'S EXPEDITION

monsterexpedition.com

→ This puzzle game was written by PC Gamer's former deputy editor Philippa Warr, and thus my recommendation is—as the kids say—sus. Hear me out though: This latest of designer Alan Hazelden's Sokoban-style puzzlers is his best work yet, and is filled with clever twists and emerging revelations.



FINAL FANTASY XIV

finalfantasyxiv.com

→ Despite its slow start, there's a lot to love about *FFXIV*. While I'm only part way through the vanilla campaign, already the story feels more fleshed out and dramatic than most MMOs I've played. A recent patch speeds up progress through those tedious first levels, so now's a great time to get involved.



PARADISE KILLER

paradisekiller.com

→ The problem with going all-in on multiplayer-gaming-as-social-hangout this year is I've barely scratched the surface of 2020's best singleplayer releases. I'm making time for *Paradise Killer*, though, because even after just a couple of hours, it's solidified itself as the coolest detective game around.

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GROUP TEST

NVIDIA GRAPHICS CARDS

A whole new GPU generation, capable of higher frame rates, improved RTX, and more. *By Jacob Ridley*



Nvidia's new Ampere generation of graphics cards are shaping up to be some of its most impressive yet. Built on a new architecture, the RTX 30-series graphics cards represent a massive leap in performance over the RTX 20-series





2

through a combination of greater core counts, improved real-time ray tracing capabilities, and faster memory.

The flagship card of the lot is the RTX 3080, a glorious chunk of silicon aimed squarely at the 4K and high refresh rate market. Though above even

that you've got the beastly RTX 3090—basically a Titan in all but name. While it may not be intended solely for gaming purposes, it's difficult not to be tempted in by the possibilities, not to mention its sheer mass and prestige. If you've ever dreamed of 8K gaming, this might be the hardware for you...

RTX 3090 Founders Edition

NVIDIA \$1,500

The mother of all graphics cards

1 The RTX 3090 is effectively the uber-enthusiast Titan graphics card in disguise. It's intended to bring best-in-class GPU acceleration to a user that sits somewhere between the GeForce and Quadro ranges, and that means it's just as much for swift Blender previews as it is 4K gaming. But let's not pretend that everyone buying this card is doing so for reasons of effective time management. Many, if not most, will be sold solely for the associated bragging rights, and it's easy to see why. A single picture hardly does the RTX 3090 Founders Edition justice. You

really have to see it in person or hold it in your hands to appreciate its colossal mass.

Why stop at 4K either? With the RTX 3090, the so-called BFGPU, Nvidia has tacked on a promise of 8K gaming. It's little more than a handful of budding technologies right now, but if you are committed to gaming at the bleeding edge, and have an 8K TV, then the RTX 3090 is the best way to see the latest games writ large on the big screen.

PC GAMER VERDICT

- Ungodly core count
- Massive memory pool
- The promise of 8K gaming

SPECS CUDA CORES: 10,496 / **BASE CLOCK:** 1,395MHz / **BOOST CLOCK:** 1,695MHz / **TFLOPS:** 35.58 / **MEMORY:** 24GB GDDR6X / **MEMORY CLOCK:** 19.5GT/s / **MEMORY BANDWIDTH:** 936GB/s

RTX 3080 Founders Edition

NVIDIA \$699

A fantastic 4K graphics card

2 The RTX 3080 Founders Edition is one of the most sought after cards on the planet right now, and it's no secret as to why. This card punches well above the RTX 2080 Ti at 4K, and can also put any high refresh rate monitor to good use at lower resolutions. Paired with a decent CPU, this is a graphics card that will keep you in good stead for many years of gaming to come.

The off-kilter Founders Edition cooler is far from the usual reference design we've come to expect, too. A dual-fan push/pull design means air is circulated up and through your PC case and

away from your GPU and memory. Such an approach does absolute wonders for GPU temperatures, and that goes a long way to keeping your whole PC quiet, even when it's operating under heavy load.

The RTX 3080 Founders Edition is a great looking and performing graphics card—that is, if you can find one. At time of writing, stock remains absurdly tight for Nvidia's flagship chip in its home jersey.

PC GAMER VERDICT

- High 4K frame rates
- 'Free' ray tracing
- Clever cooler

SPECS CUDA CORES: 8,704 / **BASE CLOCK:** 1,440MHz / **BOOST CLOCK:** 1,710MHz / **TFLOPS:** 29.76 / **MEMORY:** 10GB GDDR6X / **MEMORY CLOCK:** 19GT/s / **MEMORY BANDWIDTH:** 760GB/s



THE TUF OFFERS
PERFORMANCE IN LINE WITH
THE FOUNDERS EDITION, IF
NOT OCCASIONALLY
SURPASSING IT

3

Asus TUF Gaming RTX 3080 OC NVIDIA \$750

TUF by name, TUF by nature

3 If you can't pick up a Founders Edition, your next best bet is to side with one of Nvidia's graphics card partners. A few generations back, Asus pivoted its TUF branding away from fully-plated motherboards that could withstand ballistic firearms to instead mean a budget-friendly lineup of reliable PC components. It's from said lineup that our top third-party pick comes from: The Asus TUF Gaming RTX 3080 OC.

And just because it's famed for its relative affordability, especially compared to the pricey ROG Strix range, doesn't mean the TUF isn't a worthy shell for the

RTX 3080 chip. The TUF offers performance in line with the Founders Edition, if not surpassing it thanks to its mild out-of-the-box overclock.

The TUF design is also one of the best when it comes to heat dissipation. Its triple fan design proves you needn't over-complicate the design to eke out excellent thermal performance, and the TUF sits around 60°C on average even during runs of *Metro Exodus* at 4K.

PC GAMER VERDICT

- Reliable
- Simple, effective cooling
- Well built

SPECS CUDA CORES: 8,704 / BASE CLOCK: 1,440MHz / BOOST CLOCK: 1,815MHz (OC MODE) / TFLOPS: 29.76 / MEMORY: 10GB GDDR6X / MEMORY CLOCK: 19 GT/S / MEMORY BANDWIDTH: 760GB/S

Palit RTX 3080 GamingPro OC NVIDIA \$TBC

A triple-fan alternative with a mild overclock

4 If the Asus TUF isn't your style, Palit offers another decent alternative. The Palit RTX 3080 GamingPro OC features a neutral triple-fan design at a price close to that of the Founders Edition, and it's actually the least power-hungry of all the RTX 3080s we've tested.

During testing, the Palit GamingPro managed to stay close to the backside of both the Founders Edition and the more extravagant third-party cards in performance. It's not the fastest of the lot by any means, but it was also the least thirsty with the lowest average power draw. It

also came in with overall lower temperatures than the default Founders Edition across three runs of *Metro Exodus*, and isn't far off matching the coolest of the lot, the Asus RTX 3080 TUF OC.

While the Palit may not be the best RTX 3080 going in terms of sheer performance numbers, we're talking only marginal differences between it and any other card on our benchmarking roster in practice. The Palit more than holds its own.

PC GAMER VERDICT

- Quiet cooler
- Great performance
- 0db fan mode

SPECS CUDA CORES: 8,704 / BASE CLOCK: 1,440MHz / BOOST CLOCK: 1,740MHz / TFLOPS: 29.76 / MEMORY: 10GB GDDR6X / MEMORY CLOCK: 19 GT/S / MEMORY BANDWIDTH: 760GB/S



RTX ON

Ray tracing is able to replicate lighting, shadows, and reflections in-game by firing computationally intensive rays throughout a given scene. While it can be used to stunning effect, the performance penalty once ray tracing was enabled led to the feature often being ignored.

With the RTX 30-series we needn't be so precious, however. In many RTX enabled titles, you're now able to enjoy ray-traced effects without sacrificing speed.

In some cases we've seen the RTX 3080 outpace the RTX 2080 Ti in ray-traced games even when the latter card didn't have the feature enabled. This is a huge step towards wider ray tracing adoption. So, it's safe to go RTX-on in-game now.

Colorful iGame RTX 3080 Advanced

NVIDIA \$TBC

A frankly vast, unwieldy vision of Nvidia's finest

5 I do love a good graphics card, and surely more graphics card can only be a good thing. Except that Colorful has really gone to extremes with this iGame RTX 3080 Advanced. It doesn't have the height of the Asus TUF card, but it's an incredibly long PCB that requires three separate PCIe power connectors from your power supply. It is odd that we've seen so many different RTX 3080 cards and not one has had a similar circuit board.

But because of that girth the cooling performance of the Colorful card is pretty impressive. It is cooler than the Founders

Edition, but then it's also not as fast as the straightline performance we've squeezed out of Nvidia's own take on the GPU.

As with any of these different third-party offerings the performance, for good or ill, isn't vastly different, but when the FE card is the base price for an RTX 3080 I'd still say you're getting the best deal with that more slimline, slightly toastier version.

(At time of writing, the final UK price hasn't yet been confirmed.)

PC GAMER VERDICT

- Solid cooler
- Quiet
- Unfeasibly heavy

SPECS CUDA CORES: 8,704 / BASE CLOCK: 1,440MHz / BOOST CLOCK: 1,710MHz / TFLOPS: 29.76 / MEMORY: 10GB GDDR6X / MEMORY CLOCK: 19 GT/s / MEMORY BANDWIDTH: 760GB/s

MSI RTX 3080 Gaming X Trio 10G

NVIDIA \$760

Every bit a premium card

6 If there was ever a graphics card that it made sense to spend a considerable amount more cash on just for a fancy cooler, it would be the RTX 3080. It's not like that extra cash could be spent on an RTX 3090 instead, that thing is nearly double the price. More than ever, the MSI Gaming X Trio has a welcome spot on the third-party roster—but even then, is it really worth it?

The factory overclock included with the Gaming X Trio may be relatively mild, but a generous cooler design in MSI's Tri-Frozr makes for higher average boost clocks with

Nvidia's own GPU Boost technology. Overall, that equates to it being a couple of frames faster than the Founders Edition at 4K, while maintaining a slightly lower average temperature.

That's far from a good reason on its own to rush out and buy an MSI Gaming X Trio. But if you're in the market for a really shiny new GPU and don't mind dropping a bit of extra money, you can be confident that this card will live up to your expectations.

PC GAMER VERDICT

- Great cooling
- Top performance
- Only moderate gains

SPECS CUDA CORES: 8,704 / BASE CLOCK: 1,440MHz / BOOST CLOCK: 1,815MHz / TFLOPS: 29.76 / MEMORY: 10GB GDDR6X / MEMORY CLOCK: 19 GT/s / MEMORY BANDWIDTH: 760GB/s



REVIEW

OCULUS QUEST 2

The Quest 2 is faster, lighter and cheaper than the original Quest. *By Jacob Ridley*

Oculus has a long and prestigious history with virtual reality, as one of the progenitors of the modern wave of headsets and software, and the arrival of the Oculus Quest 2 has seen a resurgence in excitement for virtual reality. Interest in VR ebbs and flows with each new major release—and the Quest 2 has brought in high tide.

I'll admit the Quest 2 wasn't something that initially had me excited. Standalone VR seemed like a backwards step for someone so swept up in the \$999 Valve Index. But perhaps I was hasty in my assumption that it would offer a definitively worse experience. Clearly it is the greater value proposition at its \$299 price point, the only option that even comes close to encroaching on the 'affordable' tag, and it offers a specs list that first-gen VR could only dream of.

The Quest 2 sports a 1832 x 1920 resolution per eye from an LCD panel. While the panel on the Quest 2 will be unable to display the deep blacks of the original Quest's OLED, the improved resolution and clarity gained in return is a worthy trade-off. The newer model also comes equipped with the Snapdragon XR2, which is a marked improvement over the Snapdragon 835 chip included with original Quest.

The storage capacity on the larger of the two available models has also been increased to 256GB, up from 128GB,

while the cheapest model remains at 64GB. The less capacious unit is what I've been testing, yet even with significantly less space you'll have no issue keeping a half-decent catalogue of good VR experiences installed. I'm using just 21.56GB of the Quest's capacity, and I have 19 apps installed, most of which are games.

Before you're able to start exploring in VR, you have to follow the on-screen setup. This is delivered through a mix of in-headset and in-app prompts, which are either relatively pain-free and easy to follow or fundamentally inaccessible. That all depends on whether you're a Facebook user or you're not.

SPECS

EXPECT TO PAY:
\$299

**RESOLUTION
(PER EYE):**
1832 x 1920

REFRESH RATE:
72Hz (90Hz with support)

STORAGE:
64/256GB

BATTERY:
2-3 hours

CONTROLLERS:
2x Oculus Touch

ANTI-SOCIAL MEDIA

For those with a Facebook account, the process will have you removing your headset, memorizing Wi-Fi passwords, putting the headset back on again, and then waiting around for a couple of updates. For a first

time setup, it's fiddly, but you need only do it once, and it's relatively quick to complete all told.

If you don't have a Facebook account, you either need to make one or find a different headset. A Facebook account is a requirement with the Oculus Quest 2. That's sure to put off a few people, and I admit the prerequisite Oculus to Facebook account link seems excessive when the meat of the Oculus app remains completely independent from Facebook functionality.

It's the price you must pay for this headset. Facebook holds the keys to the platform, so either make your peace or start looking elsewhere for VR.

Once you're logged in and the initial setup is complete, you're ready to actually set up your VR area. This is where the intuitive and rather brilliant

**I'M USING JUST 21.56GB
OF THE QUEST'S CAPACITY, AND
I HAVE 19 APPS INSTALLED**



» tracking system of the Quest 2 comes into play. While setting up your play area, you will see a live feed of the world in greyscale from the exterior Quest 2 cameras. You're free to make your play space as wobbly as you please, and you only need touch the ground with a controller to set your floor height.

Whereas most tethered headsets require the use of an external sensor or two in order to track the headset and controllers movements within 3D space, the Oculus Quest 2 is a self-contained unit capable of tracking controller, hand, and headset movement without further kit, as did its predecessor. Not much has changed with the Quest 2, but there was already a lot to love about the Quest's tracking.

One such great (and relatively new) feature carried over from the Quest is hand tracking. The Quest 2 not only tracks the included twin Oculus Touch controllers, but also your mitts. You have a limited range of control—move and pinch—yet it makes for a quick and easy setup every time you put the headset on, which is often a barrier for those of us without the luxury of a permanent space for VR.

ON TRACK

I've been hesitant to rely on tracking solutions without external sensors in the past, just because it's not been quite up to par with the base stations first included with the Vive, its subsequent iterations, and Valve Index. Yet the Oculus Quest 2's tracking is surprisingly accurate, even when I've been at my most animated. Even base stations aren't a flawless solution, especially not those included with the original Rift, and the inside-out tracking on the Quest 2 manages to keep up well—and without the fear of moving out of the eyeline of the sensors.

It's pretty freeing, in all honesty. I can go from gaming on my PC to gaming in VR in a couple of minutes, and that's including time spent taking the Quest 2 out of the box.

The standalone experience is admittedly hampered by the low-power silicon, and there's no getting around that. The Quest 2 not only deals with the processing onboard, but it's also trying to conserve battery power to ensure a

half-decent run. That's around two hours of battery life for gaming, and a little more for less intensive applications, such as YouTube VR or Netflix. The controllers also last a very long time, and despite testing this headset for a few weeks, I'm yet to run them flat off of a single AA battery.

The low-rent rendering is noticeable in games such as *Arizona Sunshine*, which I've played enough times on tethered kit to notice the significant difference in graphics quality between versions. The Quest 2 has that little more power, and *Arizona Sunshine* is one such game updated to put it to good use, but it still leaves you with that '90s arcadey quality that you don't get



TOP: The Quest 2 is £100 cheaper than its predecessor at launch.

BOTTOM: The Quest 2 requires no external tracking sensors.

as often with headsets harnessing the power of discrete graphics.

That's not to say the experience is functionality poor by comparison. Graphics aren't everything, especially not in VR. It's the consistency and smoothness of the experience that really counts for a lot. The Quest 2 offers plenty of each, and will soon offer more once content begins supporting its panel's native 90Hz refresh rate.

This so-far has only applied to the standalone Quest 2 experience, but there's a dimension to the device that we've so-far left unexplored, despite it being what takes this mild-mannered standalone headset and puts it front and center even for us PC folk.



1 ELITE STRAP AND BATTERY

For £119, you can pick up this integrated battery pack with an included carry case.

2 IMMERSIVE AUDIO

The Oculus Quest 2 features twin speakers built into the headset strap.

3 HIGH RES

The Oculus Quest 2 offers 50 percent more pixels than the original.

4 PORTABLE

All the power you need for VR gaming is housed in the headset itself.

That's Oculus Link. Requiring just a single USB Type-C cable run from your headset to PC, Link allows you to harness the power of your graphics card to stream across your favorite compatible games to your headset, including those from the Oculus app and SteamVR compatible games.

Half-Life: Alyx, here we come.

I've been exploring the maze of buildings littering City 17's border through Oculus Link on the Quest 2, and it's been a relatively painless experience. The Oculus controllers are accurately mapped for the game, and only in the loading screens did I ever experience any sluggish performance. The Index may be the ideal *Half-Life: Alyx* machine, but the game doesn't

feel worse for wear on the cheaper Quest 2.

And that's why I really rate the Quest 2 as an entryway into virtual reality. Standalone headsets have done a lot to bolster sales of VR headsets, and tacking on the ability to turn your standalone device into PC VR kit to make the most of your PC's graphics card is definitely a masterstroke.

It's not a headset entirely without fault, I'll admit. The strap reminds me of the original Vive's, in that it either puts far too much pressure on your face or feels insecure on your head, and it costs \$49 for the more stable Quest 2 Elite Strap. There's also the case of the Link Cable, which is great at five metres in length, but costs \$89.

Don't be afraid to try out something cheaper for Oculus Link, however. I ran *Star Wars: Squadrons* just fine on a very worse-for-wear USB Type-C to Type-A cable from a generic brand.

The Oculus Quest 2 delivers so much in a compact, easy-to-use, and affordable package that it's hard to argue with the faults or that a lot of the ideal kit is an optional extra—Facebook login excluded. There have been some compromises, but they seem well thought out and leave the door open to further upgrades once you've tried VR out. And it's a great device to recommend for people to try VR out—it opens the door to a lot of experiences that would be fiddly, expensive, or unattainable otherwise. ■

PC GAMER

VERDICT

As a standalone headset or tethered to a gaming PC, the Quest 2 is simply the best entry-point into VR right now.

90

THE OCULUS QUEST 2 DELIVERS SO MUCH IN A COMPACT, EASY-TO-USE, AND AFFORDABLE PACKAGE



The *Borderlands Science* arcade cab is tucked away in the infirmary.

GAMES FOR GOOD

How two projects are merging citizen science into our games

The idea of citizen science isn't a new one. Amateur scientists have been making important discoveries as far back as Ug the Neolithic hunter and her 'wheel', while even Newton, Franklin, and Darwin were self-funded for part of their careers, and Herschel discovered Uranus while employed as a musician. It's only from the late 20th century that it's crystallized into what we know today, with the North American Butterfly Association using its members to count the popular winged insects since 1975. Zooniverse has users classify images to identify stellar wind bubbles, track coronal mass ejections, and determine the shape of galaxies. Then there's Folding@Home and other cloud computing projects—they count too.

These citizen science projects are, essentially, experiments in human computation. You can even get paid for doing them through Amazon's Mechanical Turk programme. What none of them involve, however, is playing PC games. And while sites such as Artigo (artigo.org unless you want a Portuguese flooring company) gamify things a bit by having you assign tags to paintings while paired with another player, scoring points when your tags match, it's not exactly AAA.

Integrating science into a videogame is tricky. We recoil from anything labeled as 'educational', but there's an

opportunity here to do real good. Indeed, what started life as a project to map human proteins in *EVE Online* in 2016 has, via the classification of exoplanets in 2017, come right down to Earth with a project to detect and measure the chemical characteristics of cells—known as flow cytometry—which has a bearing on the body's response to COVID-19. *EVE* calls this Project Discovery, and you access it by clicking the logo in the Neocon menu. Take part, and you can earn exclusive cosmetic customizations for your *EVE* character.

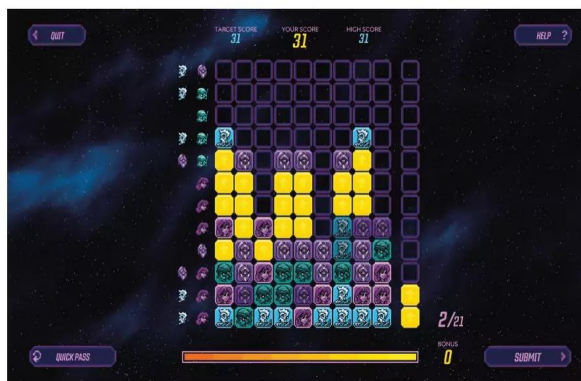
EVE's universe isn't the only place you can take part in actual scientific research: An arcade cabinet in a corner of Tannis' infirmary on the *Borderlands 3* planet of Sanctuary III hides *Borderlands Science*, in which you can take part in an initiative to map the DNA of bacteria found in the human digestive system. It's "an opportunity to use the enormous popularity of *Borderlands 3* to advance social good" according to Gearbox Software co-founder Randy Pitchford.

Both of these projects can be traced back to a Swiss startup called MMOS—Massively Multiplayer Online Science—which provides an API to bridge the gap between game and research. What you see in the game isn't anything new—we've been playing these sort of minigames for many years, using them to hack turrets or open locked doors—but rarely have they had such weight to them. "We know that games are the most engaging form of entertainment today," says Atila Szanter, co-founder of MMOS. "And if we can take



Hard cell

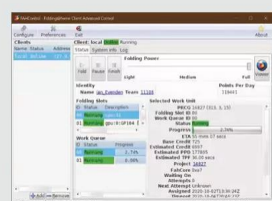
If this isn't quite enough cell biology for you, you could do worse than to look at the board game *Cytosis* by John Coveyou. A worker placement and resource management game, *Cytosis* takes place within a human cell, and the 'workers' you place distribute carbohydrates or collect ATP. And much like life itself, whoever has the most 'health' at the end wins. Find it at genius-games.eu.



FAR LEFT: Marking clusters in EVE's Project Discovery sees you rewarded with an accuracy score and in-game items.

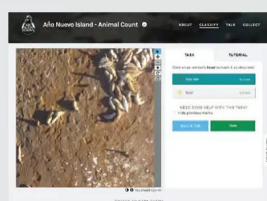
LEFT: It may look a bit like Tetris, but there's more to this than clearing lines.

TRY IT *Citizen science projects you can take part in today*



1 FOLDING

Everyone by now has heard of Folding@Home, the distributed computing project taking on COVID-19 as well as various cancers.



2 ZOONIVERSE

A whole host of science projects you can get involved with, including choosing whether TESS exoplanet candidates are real or not.



3 EINSTEIN

Use your PC to search for gravitational waves generated by distant neutron stars. This stuff is exactly what distributed computing was made for.



4 MINECRAFT

Want to study the properties of worlds generated from random seeds? This project has already discovered the seed for the game's title screen.

just a fraction of the time that's spent gaming, and make it useful for science, then that's practically a limitless resource. This is the third iteration of Project Discovery, and the task has been completely different in every version, but I think this most recent version is the most interesting.

"Roughly what it is, is that we take a blood sample, put it in a tube, and then fire multiple laser beams across that blood. Through this, we can count different types of cells, like how many T-cells we have. The composition of the blood is important, as it helps us to understand how the immune system is reacting to different types of treatment. The data we collected is not just numbers, instead it's multidimensional data. So we have a lot of numbers and data points, and there's no automated method that analyzes it accurately enough, so scientists do it by hand. To accelerate this process, we can replace those scientists with people with minimal training who can annotate the samples." That's what you're doing in the minigames—marking the cell populations in blood samples after following an in-game tutorial.

GO WITH YOUR GUT

Meanwhile, over in the looter-shooter, *Borderlands Science* encodes the DNA of each gut microbe as a string of bricks of four different shapes and colors. Players connect those colored shapes to help scientists estimate the similarity between each microbe. The more puzzles players solve, the more they help decode the human gut microbiome, all while earning rewards that can be used in *Borderlands 3*. There are

partnerships here with researchers and scientists at McGill University, Quebec, and The Microsetta Initiative at UC San Diego School of Medicine, while Big Bang Theory star Dr. Mayim Bialik lent her voice to the project.

"To some extent we are more microbes than human," says Szanter. "You have a lot of papers recently trying to draw a potential connection between the microbes in your gut and Alzheimer's, the idea is that what you eat now may trigger something, or not, years from now. It's a huge field, and probably one of the most interesting in biology these days. With a potentially huge impact on the health system."

We get the feeling we'll be seeing more of these minigames

make their way into videogames. "Games are huge, and games will be with us for a long time," Szanter says. "We solve the virtual problems that game designers create, and as we move more of our lives into these virtual worlds, it is

THE MORE PUZZLES PLAYERS SOLVE, THE MORE THEY HELP DECODE THE GUT MICROBIOME

almost an imperative for us as a society to find more and more value in this time we are spending in games."

So far, over 1.5 million players have engaged with the minigames, leading to hundreds of millions of submissions to the scientific projects. "Since beginning Project Discovery we have seen our players band together as one to affect incredible change," says Bergur Finnabogson, *EVE Online's* creative director at CCP. "We are constantly reminded that the *EVE* community is like no other." No other, apart from *Borderlands*, it seems. With the right tools, games are a powerful source of good in the world. ■

Ian Evenden

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
\$883













MOTHERBOARD		B450-A Pro Max MSI \$100 A healthy dose of ports and PCIe SSD support has this B450 at the heart of our budget build.
PROCESSOR		Ryzen 3 3300X AMD \$120 AMD has packed its latest Zen 2 architecture into a speedy four-core package, and that's great for gaming.
GRAPHICS CARD		GeForce GTX 1650 Super Gigabyte \$160 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 \$51 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 \$70 Corsair's reputation for quality PSUs precedes them. You know you're in safe hands here.
SSD		WD Blue SN550 500GB Western Digital \$70 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 \$43 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 \$65 You'll want to minimize how often you rebuild your PC, so make sure to give it a good home. This case'll do nicely.
DISPLAY		GW2280 BenQ \$113 A 1080p60 VA monitor will see you through in style and, once you upgrade, will make a superb second monitor.
KEYBOARD		G213 Logitech \$60 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 \$30 A classic shape delivered in a sleek shell, this mouse fits all hand sizes and grips. A solid option for the money.

MID-RANGE BUILD

Our recommended build for playing the latest games



TOTAL
\$1,504







MOTHERBOARD		B450 Tomahawk Max MSI \$115 A reliable platform for your build, the Tomahawk Max also comes in black to complement any style.
PROCESSOR		Ryzen 5 3600X AMD \$210 This CPU is one of the greats, and uses the Zen 2 architecture to dominate in gaming and productivity.
GRAPHICS CARD		GeForce RTX 2060 KO GAMING EVGA \$300 The RTX 2060 is a taste of the good life, where frame rates are high and real-time ray tracing is possible.
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 \$80 With plenty of capacity at 16GB, this unembellished memory has everything you need for gaming and more.
POWER SUPPLY		CX650M Corsair \$108 The heart of your gaming PC is your PSU, and this 650W Corsair promises to keep your rig ticking nicely.
SSD		S70 1TB Addlink \$150 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 \$43 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 \$90 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 \$236 Everything a PC gamer could want: 144Hz refresh rate, 1ms response time, and it's AMD FreeSync and Nvidia G-Sync compatible.
KEYBOARD		Alloy FPS HyperX \$97 As the name suggests, this keyboard is built like an absolute tank, with a steel frame and Cherry MX switches.
MOUSE		Model O- Glorious \$75 Lightweight and responsive, the Model O- has made a name for itself among streamers and pros thanks to its clever design.

ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds



TOTAL
\$3,639

MOTHERBOARD		MPG Z490 Gaming Carbon WiFi MSI \$270 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 \$699 The RTX 3080 is the flagship graphics card of an entire new GPU generation.
COOLER		Kraken X63 NZXT \$150 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 \$164 If you truly want to show off, even your system memory should be aglow in RGB.
POWER SUPPLY		SuperNOVA 1000 G5 Gold EVGA \$214 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 \$189 Western Digital are back on Samsung's heels with this brilliantly fast, yet affordable, 1TB M.2 NVMe SSD.
HDD		860 QVO 2TB Samsung \$243 Built on QLC flash memory, it's not the quickest storage around, but it's a speedy alternative to a HDD.
CASE		600C Corsair \$149 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 \$650 This one's an easy choice—4K and 144Hz for under \$1,000 is an offer we can't refuse, and neither should you.
KEYBOARD		G915 Lightspeed Logitech \$245 Low-profile mechanical switches are just the icing on the cake that is the superb, wireless Logitech G915.
MOUSE		G502 Lightspeed Logitech \$137 With a lengthy battery life and a phenomenal sensor to keep you gaming at your best, the G502 is undoubtedly one of the finest.

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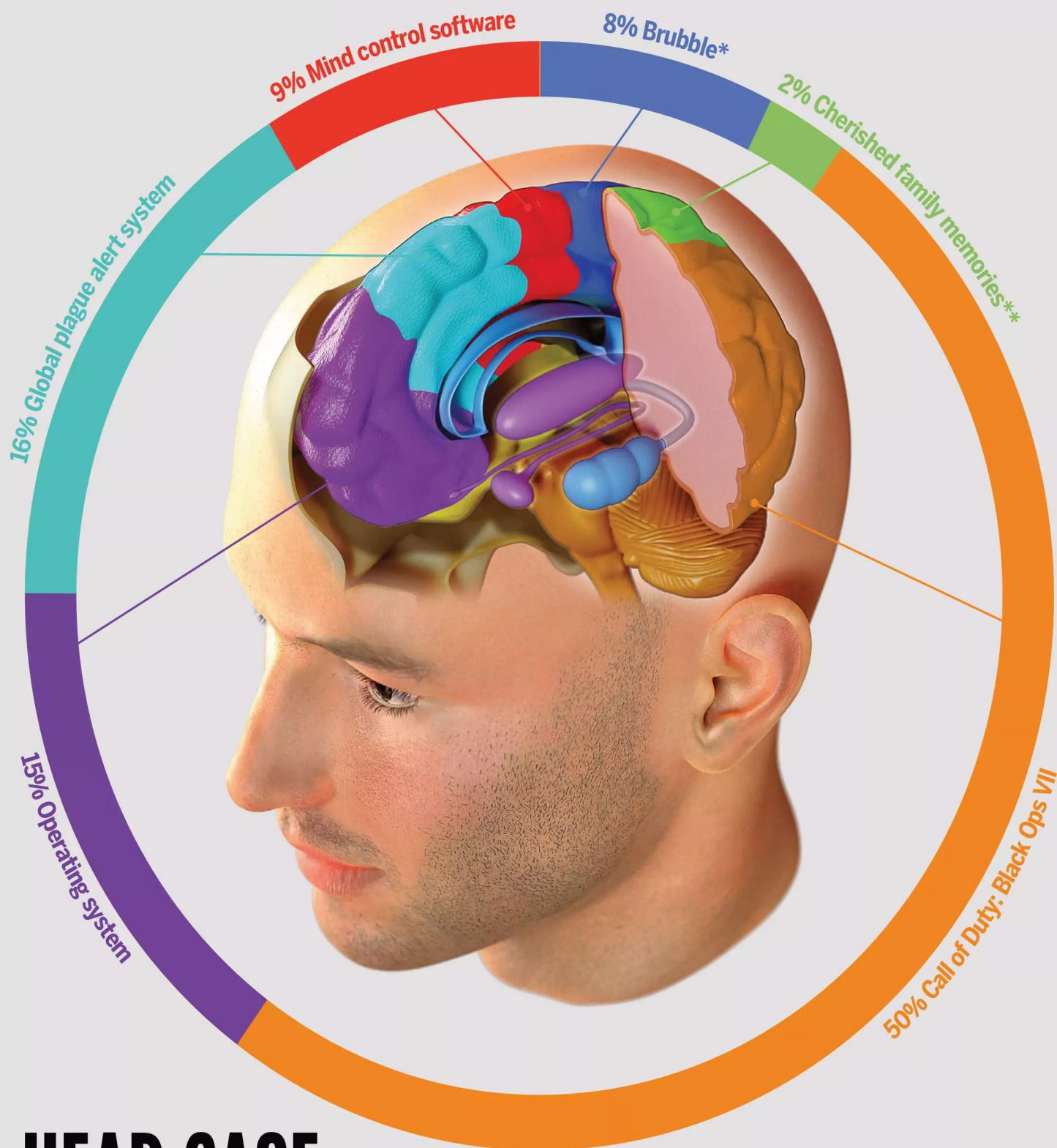
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HEAD CASE

If certain tech billionaires are to be believed, some day soon we'll all have PCs directly installed in our brains. But what data will we be storing on our grey matter drives? This month, we offer you a glimpse of the future...

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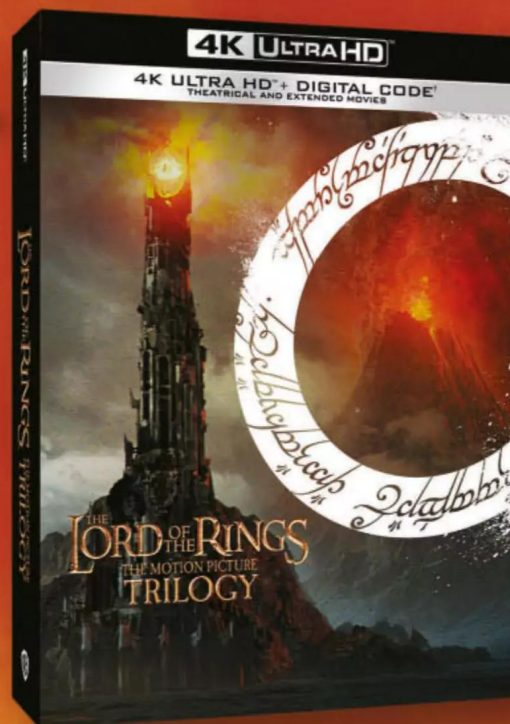
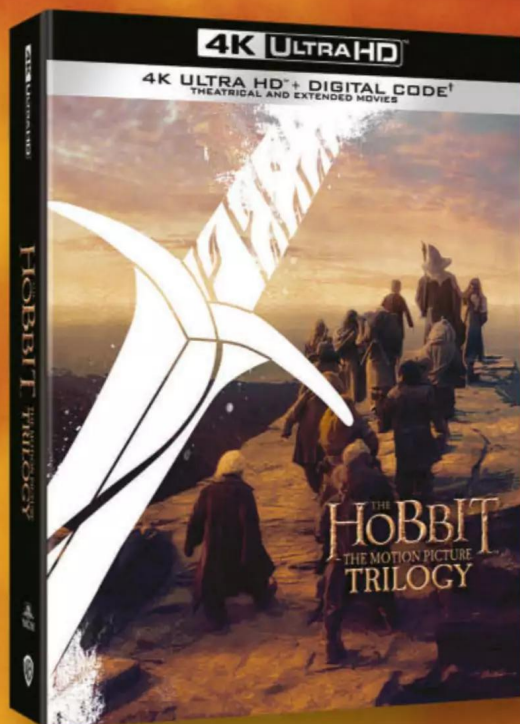
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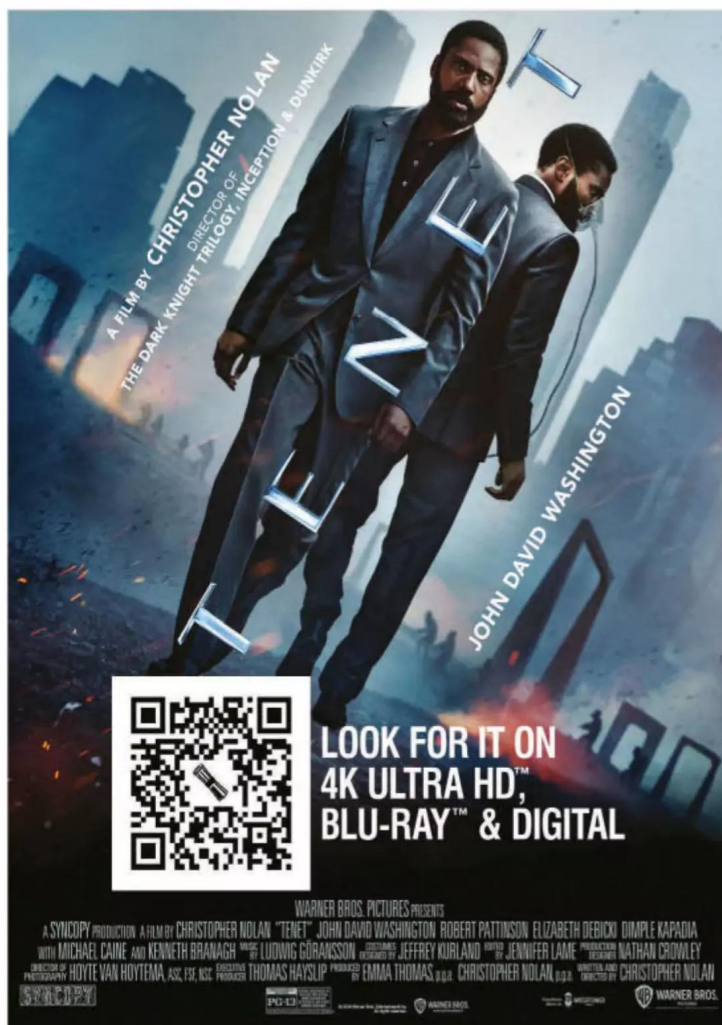


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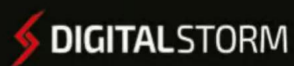
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