SATURDAY 16 SEPTEMBER 2023

SAT 19:00 Lost Land of the Volcano (b00mwcqx) Episode 3

Steve Backshall heads a team descending into the crater of a giant extinct volcano covered in thick jungle. Deep in the heart of the remote island of New Guinea, this lost land is protected on all sides by fortress walls half a mile high. They are the first outsiders ever to penetrate this hidden world, which biologists have long believed could be home to spectacular new creatures.

George McGavin travels east to an erupting volcano and discovers a rare bird that depends on the hot ash for its survival. Sudden explosions bring the trip to a quick halt as giant boulders crash into camp.

The series culminates in the lost world of the crater as Steve and wildlife cameraman Gordon Buchanan discover two large mammals that have no fear of people and are totally new to science - a giant rat that is as big as a cat, and a cuscus, which is a tree-climbing marsupial.

SAT 20:00 Ray Mears's Northern Wilderness (b00nyf61) In Arctic Footsteps

In a stunning celebration of one of earth's last great wildernesses, Ray Mears goes on an epic adventure into Canada's unforgiving yet inspiring landscape.

In this episode of the series, Ray follows in the footsteps of an unsung British hero who helped put modern Canada on the map. John Rae from Scotland was the first great Arctic explorer and came to be regarded as the foremost authority on First Nation methods of Arctic survival and travel. Ray Mears follows the story of how John Rae found the Northwest Passage - the Holy Grail of 19th-century exploration. Yet this man, who should have been a hero of his day, was vilified by the British establishment. Ray believes it's time to put the record straight.

SAT 21:00 Gold Run (m001qnrm)

April 9, 1940. The German war machine occupies Norway. One of their primary objectives is to seize the nation's entire gold reserves. But thanks to a few courageous individuals, the gold is smuggled out - just as the Germans come.

This is the incredible true story of how 55 tonnes of gold was transported through rough winter landscapes on trucks, trains and boats by a group of unlikely resistance fighters ahead of the invading Nazi forces.

SAT 22:55 Parkinson (m001qnrr) Parkinson Meets Paul McCartney

Michael Parkinson's guest is Paul McCartney, one of the most successful popular music composers of the 20th century.

In the first televised interview after the death of his first wife, Linda, the singer-songwriter talks exclusively about his life and career.

SAT 00:00 Parkinson: The Interviews (m001qnrt) Series 2

The Les Dawson Interviews

Michael Parkinson recalls three memorable interviews with much-loved comedian Les Dawson.

SAT 00:45 Yes, Minister (b0078356)

Series 1

The Right to Know

Sir Humphrey prevents Jim from getting to know too much about how the Department of Administrative Affairs operates and uses badgers in Hayward's Spinney to show him there are things it is better not to know.

SAT 01:15 The Thick of It (b00p5wrm) Series 3

Series 5

Episode 6

With the Prime Minister away at a summit in Spain, Malcolm Tucker is left at home to mind the shop. Just as Nicola Murray is about to launch her Fourth Sector Initiative to the media, the media decide that what they really want is someone to launch another leadership contest.

Does Nicola have what it takes and, if she does, can Malcolm take it away from her before she does any damage?

SAT 01:45 Some Mothers Do 'Ave 'Em (b0077tj1)

The Employment Exchange

Classic comedy with one-man disaster area Frank Spencer. The new manager of the labour exchange refuses to believe that Frank is unemployable.

SAT 02:15 Ray Mears's Northern Wilderness (b00nyf61) [Repeat of broadcast at 20:00 today]

SUNDAY 17 SEPTEMBER 2023

SUN 19:00 Pierre Boulez at the BBC: Master and Maverick (b06z6618)

Tom Service presents 40 years of great BBC archive featuring the French composer, conductor and musical icon Pierre Boulez, who died on 5th January 2016 at the age of 90. Opinionated and challenging, Boulez transformed the way that musicians and audiences all over the world think about contemporary music. With orchestras including the BBC Symphony, he rehearses and performs Debussy, Stravinsky and Bartok, as well as a selection of his own extraordinary compositions. Boulez's relationship with the BBC began in the 1960s and blossomed during his years as chief conductor of the BBC Symphony Orchestra - leaving a vivid legacy in the BBC's TV archive.

SUN 20:00 The Read (m001qnr3) Series 2

A Kestrel for a Knave

Christopher Eccleston narrates Barry Hines's heartbreaking coming-of-age tale in this fresh take on a classic British novel. It's the story of teenager Billy Casper, whose life can be described as bleak. Bullied at home and at school, he finds solace in a love of falconry. He devours books to help him learn how to rear a young hawk, which becomes a distraction from the challenges of life at home with his mum and brother Jed. But a miscalculation while running an errand for his brother has drastic consequences for his new-found hobby.

Filmed at Oldham Colliseum Theatre, Eccleston brilliantly guides the viewer through the heartbreaking cadence of Billy's

SUN 21:05 Greg Davies: Looking for Kes (m000bh0n)

Comedian, actor and ex-English teacher Greg Davies is a lifelong fan of Barry Hines's classic novel A Kestrel for a Knave, the story of Billy Casper training a kestrel as an escape from his troubled home and school life. In this documentary, Greg goes in search of the book's enduring appeal, travelling to Barnsley, where the book was set and where Ken Loach's famous adaptation, Kes, was filmed.

In a series of encounters with Barry Hines's friends and family, collaborators and admirers, Greg offers a warm, funny and poignant tribute to a book that gave a unique voice to the working-class experience and, in Billy Casper, created a young rebel whose story continues to connect with readers more than 50 years after it was first published in 1968.

In the fish and chip shop young Billy visits in Kes, now renamed Caspers, Greg meets Dai Bradley who played Billy Casper. Together they wonder what might have become of him. I think he would have kept that fighting spirit,' says Dai. 'There's a lot of kids like him out there and the message of the book is that we need to find ways to harness that energy.'

Greg also meets members of the local community in the working men's club, where Barry was a regular, and discovers how many characters in the book were inspired by the people he met there, including the notorious PE teacher.

Ken Loach explains why the book provided such perfect source material for the film. 'The truth of the book shone through: the comedy, the use of language and dialect and, of course, the central image of a boy who is trapped, training a bird that flies free.'

Greg visits the site where Barry Hines's brother, Richard, found his own kestrel, the encounter that inspired the character of Billy and the location used in the film. For the first time in 50 years, Richard flies a kestrel again.

In the Sheffield University archives, Greg is thrilled to discover the original handwritten manuscript of A Kestrel for a Knave. There he meets Jarvis Cocker, another fan of the book, who discusses why the book meant so much to him 'That symbolism of escape was powerful for me growing up,' says Jarvis. The desire for escape has been a massive engine for creativity for people from working-class backgrounds. You want to make,

write or sing something to help you escape.'

SUN 22:05 Ken Dodd: How Tickled We Were (b0bwdjxg)

For over six decades, Sir Ken Dodd was one of Britain's favourite entertainers - a comedian whose surreal world of tickling sticks, jam butty mines and Diddymen kept generations of audiences entertained, from his professional debut in 1954 to his final curtain call in December 2017. In Sir Ken's own words and with testimony from friends, family and colleagues who knew him best, this revealing documentary film tells the story of his incredible life and long career, which included a recordbreaking run at The London Palladium in the 1960s, numerous television series and specials, countless summer seasons and variety shows, a string of hit records and a touring one-man show that continued right into his ninetieth year.

Sir Ken's wife Lady Anne talks about his love of being on stage and their life spent together in Knotty Ash, and his friends and peers discuss his unique and enduring relationship with the British public. In addition to rarely seen archive of Sir Ken's work on stage and television, the programme features home movies and family photography from his own personal archive. Featured interviewees include Dara O Briain, Ricky Tomlinson, Alex Horne, Jimmy Tarbuck, Stephanie Cole, Roy Hudd, Joe Pasquale, Ian St John, Roger McGough, Bishop James Jones and Claire Sweeney. Craig Charles narrates.

SUN 23:20 The Shock of the New (b0074qg8) The Landscape of Pleasure

Robert Hughes examines art's relationship with the pleasures of nature, its place in them and man's understanding of them. Featuring works by Georges Seurat, Claude Monet, Paul Cezanne and Paul Gauguin.

SUN 00:20 The Shock of the New (b0074qg9) Trouble in Utopia

Robert Hughes' classic series about art in the twentieth century; the avant-garde and the modernist in the century of change.

This edition deals with the aspirations and reality of the art in which we live, architecture. Utopian visions rarely work in reality and Hughes examines the utopian in the parallel lines of concrete, towering verticals of steel and planes of glass of modernism in the buildings, built and planned, of Le Corbusier, Mies van der Rohe and Gropius, which he contrasts with the paintings of Mondrian.

SUN 01:20 Pierre Boulez at the BBC: Master and Maverick (b06z6618)

[Repeat of broadcast at 19:00 today]

SUN **02:20 Lost Land of the Volcano (b00mwcqx)** [Repeat of broadcast at 19:00 on Saturday]

MONDAY 18 SEPTEMBER 2023

MON 19:00 Great Coastal Railway Journeys (m0014t6x) Series 1

Barry Island to Pyle

Michael Portillo continues his south Wales coastal railway journey in Barry Island, where he investigates 'what's occurring at the busy docks. The waters upstream of the Barry Island Peninsula are tricky to navigate, and the tides are the second highest in the world. Michael joins a Bristol pilot on his way to help guide a feeder container ship into port, watching with trepidation as the pilot transfers from the cutter to shin up a ladder to the ship's bridge.

On the Jurassic shoreline, Michael meets a young girl with a big claim to fame and hears how her internationally significant discovery on the beach at Barry shook the palaeontology community.

Skirting the Glamorgan Heritage Coast, Michael alights at Llantwit Major to visit St Donar's Castle. Continuously occupied since the 12th century, it's now home to a school whose students have made an important nautical mark. Michael joins their lifeboat crew for a 'man overboard' drill.

From Pyle, Michael reaches the pretty seaside resort of Porthcawl, where he finds an unexpected transatlantic alliance between a black American polymath, famous for his deep baritone voice, and a choir of Welsh miners. At the town's Grand Pavilion, Michael hears the story of Paul Robeson's friendship with the Treorchy Male Choir and listens to them sing.

Supported by bbc.co.uk/programmes/

MON 19:30 Climbing Great Buildings (b00ty47v) Clifton Suspension Bridge

Dr Jonathan Foyle, architectural historian and novice climber, scales Britain's most iconic structures to reveal the buildings' secrets and tell the story of how our architecture and construction have developed over 1,000 years.

The next step of Jonathan's journey takes him to the Clifton Suspension Bridge in Bristol. Begun in 1835 by the great engineer Isambard Kingdom Brunel when he was only 24 years old, it is one of the greatest feats of Victorian engineering in the world.

With unprecedented access to the bridge, aided by champion climber Lucy Creamer, Jonathan scales all over to the bridge to investigate the innovations and techniques used to build this incredible structure inspired by £1000 from a wine importer.

Jonathan climbs over 300 feet to investigate the revolutionary design and perches atop the massive chains that make it all possible. He descends 35 feet to discover Brunel's secret chambers in the towers that remained undiscovered until 2002, and he hangs exposed 245 feet above the river Avon to reveal the Victorian engineering which prevents disaster by expanding and contracting, just as Brunel devised.

MON 20:00 Art on the BBC (m001348j) Series 2

The Great Salvador Dali

Art historian David Dibosa examines six decades of BBC archive material to create a television history of Salvador Dali. Often called art's greatest showman and the world's first celebrity artist, Dali shamelessly used TV to promote his art and himself. Dali's striking, dreamlike images made his name synonymous with surrealism, and he shocked the world through film, fashion, sculpture and architecture.

In this account, David hunts through dozens of BBC programmes to try to understand the real Salvador Dali, not just the more familiar eccentric show-off. Taking in films presented down the decades by Robert Hughes, Sister Wendy and Philippa Perry, David's rich dive into the archives, including Dali's own films, reveals how our understanding of the artist has changed dramatically over the years.

Whatever the era, Dali has always been important to programme makers – so much so that on BBC Four's launch night in 2002, one of the broadcasts was a star-studded and surreal comic exploration of Dali's early career, featuring Stephen Fry, Matt Lucas and Ewen Bremner. David also delves into Dali's fractured relationship with the surrealists and his own family, and his life-long passion for his wife Gala, who was the engine behind his later career and helped him take America by storm.

MON 21:00 Maggi Hambling: Making Love with the Paint (m000nx23)

In a definitive and moving film to mark her 75th birthday, artist and national treasure Maggi Hambling tells her story while working on a mysterious black canvas.

Famously scary and a free spirit, Hambling is celebrated for her intensely moving portraits - the blind boxer Charlie Abrew, the lonely clown Max Wall - her Wave painting and Scallop, her signature sculpture on Aldeburgh beach, commemorating Benjamin Britten.

Maggi is both a comic extrovert and an intensely private artist, seen parading in a feather boa and fish nets or on television sporting a moustache. But now she mostly prefers the rural Suffolk of her childhood. It is here, for the first time, she has allowed cameras access to her studio, talking candidly to filmmaker Randall Wright during breaks from work. Others offer their insights - her partner and fellow artist Tory Lawrence and much-loved friends, including art writer James Cahill and renowned artist Sarah Lucas.

As her trust in the documentary project grows, Maggi reveals her recent Laugh paintings, exploring her fascination with an expression that seems on the edge of tears. So much of her work finds beauty that is both poignant and unsettling. Her much-admired wave paintings have the majesty and restorative power of nature and yet threaten. Maggi's major work War Requiem, inspired by Britten, presents the violence of war as terror-inspiring and awesome. Now she confronts man-made environmental disaster in the same tragic mode - her love for animals mediated by the shock that their beauty may not prevent extinction.

Finally, Maggi Hambling completes her new painting on a black canvas. Without giving too much away, the powerful image reveals a formative childhood memory. At 75, Maggi, in a morose mood, sometimes wonders at the futility of life, but she still battles every day to immortalise the memory of love.

MON 22:00 Barbara Castle Remembered by Michael Cockerell (m001qnvc)

Acclaimed political profiler Michael Cockerell tells the story behind his encounter with one of the grand dames of Westminster, the formidable Labour MP Barbara Castle.

A female icon of the left, Castle stood out from the herd thanks to her unique charisma, steely nature and her ability to leave members of the opposition, let alone the opposite sex, completely tongue-tied.

In her conversations with Michael she speaks openly about the two great love affairs of her life, and the man she was currently keeping an intimidating watch over, the newly elected Labour leader Tony Blair.

MON 22:10 The Red Queen: A Film Portrait of Barbara Castle (m001qnvj)

The first woman to hold major cabinet positions in the maledominated world of politics, Barbara Castle, talks candidly about her life in Michael Cockerell's intimate film portrait.

Branded by the Conservatives as Red Barbara, she also enraged her own party, Labour, by seeking to reform the trades unions. Her passionate approach to politics was mirrored by her private life. She tells of her first sexual encounters and of her love affairs. She also meets Tony Blair for the first time and delivers her verdict.

MON 23:05 Bridget Riley - Painting the Line (m0011psx)

With exclusive behind-the-scenes access, seldom-seen footage from the archives, insights from admirers, experts and contemporaries including Tracey Emin, Michael Craig-Martin and Martin Freeman, and a revealing interview by Kirsty Wark, this is the story of a true visionary of British art.

Bridget Riley has been challenging our perception through painting for over 60 years, with radical work that has transformed how we look at art and invites us to feel with our eyes.

With simple black and white geometric shapes, repeated curves of colour or an array of muted dots, Riley's work moves, shimmers and - in some cases - unsettles.

At the age of 90, Bridget Riley shows no signs of stopping. Her paintings command millions at auction, she has won prestigious awards and honours, and continues to innovate, paint, publish and exhibit around the world.

BBC cameras have filmed with Riley over the past few years in two of her studios, on the cliffs of Cornwall, where she spent the Second World War, and at the National Gallery in London during the installation of her enormous mural there in 2018.

In a rare and revealing interview with Kirsty Wark, Riley dispels the numerous misconceptions which have followed her throughout her career. Many consider her as a poster girl for the Swinging 60s, while others hail her as a titan of abstract art. However, Riley considers herself a traditional painter who has merely picked up the baton from those who have gone before her, such as Leonardo da Vinci, Monet, Cezanne and Matisse.

MON 00:05 imagine... (m0006wh6)

2019

Faith Ringgold: Tell It Like It Is

Harlem-born artist, author and activist Faith Ringgold painted some of the most truthful and empowering representations of African Americans during the civil rights and women's movements of the 1960s and 1970s.

At the time, the art establishment dismissed her seminal American People series as political art by a woman, and a black woman at that. Undeterred, Ringgold continued to tell her story using numerous art forms, including traditional quilts which have their roots in the slave culture of the South. Ringgold reinterpreted their function to tell politically charged stories, something she has also done with her illustrated children's books.

Now in her late 80s, Ringgold is considered one of the most important African American artists, whose work is increasingly relevant today, imagine... spends time with this impassioned feminist, civil rights activist and champion of imagination, following her in her New Jersey studio and in the heart of Harlem as she prepares for her London show at the Serpentine Gallery.

MON 01:15 Great Coastal Railway Journeys (m0014t6x) [Repeat of broadcast at 19:00 today]

MON 01:45 Climbing Great Buildings (b00ty47v)

[Repeat of broadcast at 19:30 today]

MON 02:15 The Red Queen: A Film Portrait of Barbara Castle (m001qnvj)

[Repeat of broadcast at 22:10 today]

MON 03:05 Art on the BBC (m001348j) [Repeat of broadcast at 20:00 today]

TUESDAY 19 SEPTEMBER 2023

TUE 19:00 Great Coastal Railway Journeys (m0014t9k) Series 1

Port Talbot to Pembrey Burry Port

Michael Portillo's rail adventure along the south coast of Wales reaches the town of Port Talbot, known across the world for its steel production. He marvels as tons of molten iron are poured into railway wagons for transport to the steel plant and investigates how the industry is planning to decarbonise. At Swansea University, he finds scientists are working to capture energy which would otherwise be wasted, starting with heat.

Across the bay, Michael arrives in the Mumbles, site of the world's first passenger railway in 1807 and today home to new research into sea walls. Michael discovers groundbreaking work to design a new generation of sea defences, which takes into account not just engineering properties but also biodiversity. Researchers are monitoring a range of patterned hexagonal tiles to see which ones coastal creatures and seaweeds prefer.

From Swansea, Michael heads west to Gowerton, to the salt marsh along the Burry Inlet, where a young sheepdog called Toby shows off his skills. Michael learns what it takes to raise saltmarsh lamb before tucking in at a local pub.

Michael's train hugs the coast from Gowerton to Burry Port, where he heads for the wild and blustery Pembrey Sands, an eight-mile stretch of beach which is three miles wide when the tide is out. It's the perfect place for him to learn sand-yachting.

TUE 19:30 Wonders of the Great Barrier Reef with Iolo Williams (b0bltzbn)

On the other side of the world under the crystal clear blue waters of the Pacific Ocean lies one of the most enchanting places on the planet. Over ten thousand miles away on the north eastern coast of Australia lies the Great Barrier Reef, one of the natural wonders of our world. It provides shelter to some hidden wildlife sanctuaries that contain some magical marine creatures.

Invited on a reef adventure by Emmy Award-winning underwater cinematographer and marine biologist Richard Fitzpatrick, conservationist and naturalist Iolo Williams dives deep beneath the surface of the coral sea to discover what state this natural wonder is in. Together they travel from the extreme swells of the northern part of the reef right down to the cooler pristine corals of the south. They discover how healthy the Great Barrier Reef really is in some of its key locations to see and find out if there are real signs of hope the reef can survive the threat of global warming.

TUE 20:30 Some Mothers Do 'Ave 'Em (b0077tsm) Series 2

Cliffhanger

Classic sitcom with one-man disaster area Frank Spencer. Frank and Betty go for a spin in his new car and end up having a clifftop picnic.

TUE **21:00** Yes, Minister (b007835p) Series 1

Jobs for the Boys

A PFI is in trouble, and Sir Humphrey must rescue it without publicity.

TUE 21:30 The Thick of It (b00p90kr) Series 3

Episode 7

Nicola Murray and her team are desperate to find a major sports personality to be the face of DoSAC's new Healthy Choices campaign. Malcolm's away on holiday and doesn't want to be disturbed, so they take advice from Steve Fleming, who's back on the scene as the PM's new fixer.

Is Steve really as nice as he seems? Everyone knows Malcolm

never takes holidays, so what's he up to now?

TUE 22:00 Storvville (m001qntw)

Winning Hearts and Minds

In the aftermath of the war in Afghanistan, western troops were part of a Nato force, working with the then-new Afghan authorities to help win the hearts and minds' of locals, with Danish and British troops deployed in the key southern province of Helmand.

In this Storyville film, a former Danish soldier turned filmmaker goes back to Musa Qala, the capital of Helmand, to investigate allegations that the Afghan police were abusing young boys and men when the Danish and British were in control

With access to the-then local chief of police, to former members of the military and to some of the alleged victims, this is a powerful and painful exploration that tries to shed light on why western forces didn't win the hearts and minds of local people.

TUE 23:15 Invasion! with Sam Willis (b09jj0md) Series 1

Episode 3

In this final programme, Sam Willis continues to tell the story of the invasions that have shaped Britain. He finds evidence of the rich legacy of the Huguenots who came to Britain bringing fine silks and the latest technological developments. He also discovers the ingenious French plans to invade Britain by balloon and the subterranean fortress built for troops in the 19th century when invasion paranoia was at fever pitch.

TUE 00:15 Parkinson (m001qnrr)

[Repeat of broadcast at 22:55 on Saturday]

TUE 01:20 Great Coastal Railway Journeys (m0014t9k) [Repeat of broadcast at 19:00 today]

$\it TUE\,01:50$ Wonders of the Great Barrier Reef with Iolo Williams (b0bltzbn)

[Repeat of broadcast at 19:30 today]

TUE 02:50 imagine... (m0006wh6)

[Repeat of broadcast at 00:05 on Monday]

WEDNESDAY 20 SEPTEMBER 2023

WED 19:00 Great Coastal Railway Journeys (m0014tmj) Series 1

Carmarthen to Pembroke

Michael Portillo travels the breathtaking rural coastline of Carmarthenshire and Pembrokeshire in south Wales.

From Carmarthen Bay, he tracks up the estuary and River Towy to the historic town of Carmarthen and Middleton Hall, home of Wales's National Botanic Garden. Michael is on the trail of the quarter of a million honeybees who live in the bee garden, where the master beekeeper shows Michael their hives. Michael helps to collect honey from a frame and hears how researchers are tracking which of the estate's 5,000 flowering plants the bees like best.

Whitland is Michael's next stop, for Pendine Sands, where he teams up with an expert forager to comb the rock pools for tasty morsels such as seaweed, cockles, mussels, periwinkles and prawns and cooks them up for a beachfront banquet.

In the picture-postcard harbour town of Tenby, Michael tracks down a Welsh icon – the lovespoon. Michael learns from an expert how these pieces are carved from a single piece of wood and does his best with a chisel on a railway sleeper.

Pushing west from Tenby, Michael reaches Pembroke and its magnificent Norman castle. Here, he discovers the origins of the Welsh flag and the beginning of one of Britain's greatest royal dynasties – the Tudors. Henry VII was born at this castle in 1457.

WED 19:30 Climbing Great Buildings (b00ty4v1) St Pancras

Dr Jonathan Foyle, architectural historian and novice climber, scales Britain's most iconic structures dating from the Normans to the present day, to reveal the buildings' secrets and tell the story of how our architecture and construction has developed over 1.000 years.

The next step Jonathan's journey takes him to King's Cross St Pancras, a masterpiece of Victorian design, widely regarded as London's most stunning and romantic station.

With unprecedented access to St Pancras, aided by champion climber Lucy Creamer, Jonathan scales all over the buildings to investigate the innovations and techniques used to construct both the train terminal and the elegant Midland Hotel. On the Midland Hotel, Jonathan climbs over 240 feet up the immense clock tower to explain how Britain had different time zones until the advent of stations like St Pancras. He discovers water-powered elevators, why penthouses used to be on the ground floor, and how the hotel was almost doomed to failure by only providing nine bathrooms for 400 bedrooms.

And in the station he scales the incredible glass span roof that crosses the main terminal - the largest of its kind in the world to reveal the brilliance of its construction, how St Pancras was built on beer and why it took a poet to save one of London's greatest landmarks from being torn down.

WED 20:00 Universe (p09ybq37)

Series 1

Alien Worlds: The Search for Second Earth

Humans have long gazed up at the night sky, wondering whether other lifeforms and intelligences could be thriving on worlds far beyond our own.

Answering that question seemed fated to remain pure speculation. But over the last few decades, ultra-sensitive telescopes and dogged detective work have transformed alien planet-hunting from science fiction into hard fact. Gone are the days of speculation; the hunt for extraterrestrials has become a matter of serious scientific inquiry.

As the hunt for alien worlds began, we expected to find worlds similar to the planets in our own solar system, but we instead discovered a riot of exotic worlds. Vivid animation based on data from the most successful planet hunter of them all, the Kepler space telescope, brings these worlds into view: puffy planets with the density of polystyrene, unstable worlds orbiting two suns and 1,000-degree, broiling gas giants with skies whinned into titanic winds.

But perhaps the most startling discovery was the number of worlds that may be contenders for a second Earth. Our latest survey of the galaxy estimates that there are billions of rocky planets at the right distance from their sun to have that ingredient so crucial for life as we know it, liquid water. Amongst them, we witness the most tantalizing discovery of all: a so-called 'super-Earth', situated in the Goldilocks zone - the area just the right distance from a sun to potentially support life - and with the faint signal of water in its atmosphere.

With over 2,800 exoplanets confirmed by Kepler and discoveries still rolling in, Brian lays out his own answer to the age-old question with thrilling new science: are we alone?

WED 21:00 Horizon (b08ry919)

2018

Volcanoes of the Solar System

Volcanoes have long helped shape the Earth. But what is less well known is that there are volcanoes on other planets and moons that are even more extraordinary than those on our own home planet. Horizon follows an international team of volcanologists in Iceland as they draw fascinating parallels between the volcanoes on Earth and those elsewhere in the solar system. Through the team's research, we discover that the largest volcano in the solar system - Olympus Mons on Mars - has been formed in a similar way to those of Iceland, how a small moon of Jupiter - Io - has the most violent eruptions anywhere, and that a moon of Saturn called Enceladus erupts icy geysers from a hidden ocean. Computer graphics combined with original Nasa material reveal the spectacular sights of these amazing volcanoes.

Along the way, we learn that volcanoes are not just a destructive force, but have been essential to the formation of atmospheres and even life. And through these volcanoes of the solar system, scientists have discovered far more about our own planet - what it was like when Earth first formed, and even what will happen to our planet in the future.

$\it WED$ 22:00 Jed Mercurio Remembers... Cardiac Arrest (m001qw7w)

Writer Jed Mercurio talks about Cardiac Arrest, the medical drama series he created.

WED 22:15 Cardiac Arrest (b007484l)

Series 1

Welcome to the House of Pain

Hard-hitting hospital drama series. Medical school has not prepared Dr Andrew Collin for the realities of life on a NHS ward. Within minutes he is thrust into a life-or-death situation and is soon at odds with senior house officer Claire Maitland, an unsentimental physician bent on letting the youngster learn the hard way.

WED 22:45 Cardiac Arrest (b007484m) Series 1

Doctors and Nurses

Hospital drama series. Andrew pays the price for being nice to nurses, while a prank of Raj's closes down a ward and lands Monica with the blame. Dr Claire Maitland plans her own revenge against the sexual exploits of Dr Mortimer.

WED 23:15 Cardiac Arrest (p0g1zvs5)

Series 1

The Killing Season

When an oversight of Andrew's contributes to a patient's death, his fellow doctors choose to close ranks rather than admit negligence.

WED 23:45 Cardiac Arrest (p0g1zwsv)

Series 1

You Can't Make an Omelette without Breaking Legs

When a locum doctor is exposed as an impostor, Docherty takes charge and soon brings the ward grinding to a halt.

WED 00:15 Cardiac Arrest (p0g1zxpd)

Series 1

Turning Out the Light

Raj proves he can be a diligent doctor when his patient has a beautiful daughter. Andrew works an unbroken 50-hour stint only to face demands for more work from Dr Turner.

WED 00:45 Cardiac Arrest (p0g1zydn) Series 1

Series 1

The Edge

Events take a tragic turn as the pressure finally gets too much for Monica, Andrew and Claire.

$\begin{tabular}{ll} \it WED~01:15~Royal~Institution~Christmas~Lectures\\ (m001gmzy) \end{tabular}$

2022: Dame Sue Black

Missing Body

Professor Sue Black investigates a Christmas murder mystery to show how serious crimes are solved when there isn't a body.

Sue is joined by an expert team including leading police specialists, forensic scientists and an award-winning dog. Assisting them, the audience help to unravel the mystery, using the latest forensic cameras, fingerprint techniques and DNA analysis. Remarkable soil analysis shows how a suspicious pair of muddy boots can be traced back to the most precise location.

With insights into real serious crime investigations, Sue and her team draw on all their experience to solve the mysterious case.

WED 02:15 Great Coastal Railway Journeys (m0014tmj) [Repeat of broadcast at 19:00 today]

WED 02:45 Universe (p09ybq37)

[Repeat of broadcast at 20:00 today]

THURSDAY 21 SEPTEMBER 2023

THU 19:00 Great Coastal Railway Journeys (m0014sn4) Series 1

Milford Haven to Fishguard

On the final leg of his rail journey along Wales's southern

coastline, Michael Portillo reaches the country's most westerly station. At Milford Haven, Michael learns from the harbour master about the biggest energy port in the United Kingdom, which has an oil refinery and storage terminals as well as natural gas terminals. Further along the estuary at Pembroke Dock, Michael visits a pioneering project to harness the power of the sea. Michael gets a sneak preview of the vast yellow dishes, which will act like a bellows to capture the energy of waves.

Travelling north towards Haverfordwest, Michael heads for St David's Peninsula, where an ecological co-operative is turning to the sea for a new way of farming. In a treacherous stretch of water known as the Ramsey Sound, Michael joins two young farmers who are growing seaweed, mussels, scallops and oysters sustainably without freshwater, land, fertilisers or pesticides – truly zero input farming.

Michael's next stop is Britain's smallest city, St David's. Michael joins the dean to tour its 12th-century cathedral and to hear about Wales's patron saint.

The pastel-coloured houses and circular harbour of Fishguard is Michael's last destination on his adventure. Although it's a quiet town today, Michael discovers that, during the 18th century, the town came under attack by French forces in the last recorded invasion on British soil. Michael experiences for himself how the French were sent packing by the ladies of the town in their national red coats and black hats, and admires a Bayeux-style tapestry which commemorates the event.

THU **19:30 Climbing Great Buildings (b00ty4wj)** Glasgow School of Art

Dr Jonathan Foyle, architectural historian and novice climber, scales Britain's most iconic structures to reveal their secrets and tell the story of how our architecture and construction have developed over the last 1,000 years.

The next step of Jonathan's journey takes him to the Glasgow School of Art, built from 1897 by artist Charles Rennie Mackintosh. The school is considered to be one of Britain's most controversial, challenging and celebrated buildings.

With unprecedented access, Jonathan, aided by top climber Lucy Creamer, scales the school to reveal the myriad of influences, from medieval castles to Japanese heraldry, that Mackintosh used to create his modernist masterpiece. On his architectural treasure hunt, Jonathan scales over 90 feet to reveal how the building is modelled on a baronial castle, and how Mackintosh pokes fun at traditional architecture. He also investigates how nature and the Industrial Revolution combine when he explores one of the greatest rooms in Europe - the Mackintosh Library.

THU 20:00 Hidden Wales with Will Millard (b0bsrhh2)

Episode 1

In this three part series, writer and adventurer Will Millard discovers the hidden history of Wales by exploring forgotten, secret and usually inaccessible locations that show the country as you've never seen it before.

On an intriguing, exhilarating and sometimes dangerous journey, Hidden Wales with Will Millard offers unprecedented access to places you rarely get to see. Starting in the north and working his way south, Will reveals natural wonders hidden beneath the landscape, the abandoned buildings that tell us where Wales has come from and the modern marvels of engineering that show what the country might become.

In this first episode, Will begins his tour around Wales in the north of the country. From the biggest abandoned slate mine in the world to a forgotten mansion concealed in a wood, and from a decommissioned nuclear power station to a Victorian invention lying at the bottom of the sea, Will uncovers historical gems in parts of north of Wales you never knew existed. It could also be your last chance to see some of the Welsh history that is vanishing right in front of us.

THU 21:00 Judgment at Nuremberg (m001qp0w)

Two years after the end of the second world war, Chief Judge Dan Haywood arrives in Nuremberg to head the tribunal hearing against four eminent German judges accused of crimes against humanity.

Stanley Kramer's acclaimed fictional masterpiece tackles some of the most sensitive questions about the Nazi holocaust and how far individual responsibility lay for the horrors enacted by the regime.

THU 23:55 Tulip Fever (m000vstd)

In 17th-century Amsterdam, at the height of tulip mania, a young artist is hired to paint the portrait of a wealthy merchant

and his wife.

THU 01:30 Great Coastal Railway Journeys (m0014sn4) [Repeat of broadcast at 19:00 today]

THU 02:00 Climbing Great Buildings (b00ty4wj) [Repeat of broadcast at 19:30 today]

THU 02:30 Hidden Wales with Will Millard (b0bsrhh2) [Repeat of broadcast at 20:00 today]

FRIDAY 22 SEPTEMBER 2023

FRI 19:00 Top of the Pops (m001qp2q)

Kylie Minogue presents the pop chart programme, first broadcast on 2 February 1995 and featuring M People, MN8, Scarlet, Luther Vandross, Perfecto Allstarz and Annie Lennox

FRI 19:30 Top of the Pops (p00fsvgs)

Mark Goodier presents the pop chart programme, first broadcast on 16 February 1995 and featuring Scarlet, Vanessa Mae, MN8, Elton John, Elastica, Annie Lennox and Celine Dion.

FRI 20:00 Top of the Pops (m0009taf)

Nicky Campbell and Andy Crane present the pop chart programme, first broadcast on 22 September 1988 and featuring Pet Shop Boys, Womack & Womack, Bill Withers, Transvision Vamp, Whitney Houston, Bon Jovi, Rick Astley, The Hollies and The Pasadenas.

FRI 20:30 Top of the Pops (b07bfnxc)

Simon Bates introduces the pop chart programme, first broadcast on 24 September 1981 and featuring performances from Slade, Depeche Mode, Madness, Imagination, Alvin Stardust, Linx and Adam & The Ants, and a dance performance from Legs & Co.

FRI 21:00 Country at the BBC (b017zqwb)

Grab your partner by the hand - the BBC have raided their archive and brought to light glittering performances by country artists over the last four decades.

Star appearances include Tammy Wynette, Kris Kristofferson, Johnny Cash and, of course, Dolly Parton. All the greats have performed for the BBC at some point - on entertainment shows, in concert and at the BBC studios. Some of the rhinestones revealed are Charley Pride's Crystal Chandeliers from the Lulu Show, Emmylou Harris singing Together Again on the Old Grey Whistle Test and Billie Jo Spears's Your Good Girl's Gonna Go Bad from the Val Doonican Music Show.

We're brought up to date with modern country hits by kd lang, Garth Brooks, Alison Krauss and Taylor Swift, plus a special unbroadcasted performance from Later...with Jools Holland by Willie Nelson

FRI 22:30 Arena (b0074sf6)

Hank Williams: Honky Tonk Blues

Hank Williams was the greatest singer-songwriter country music has ever known. He died on a journey half-way across America to a gig he would never make, at the age of just 29.

More than fifty years after his death, Williams ranks among the most powerfully iconic figures in American music. He set the agenda for contemporary country songcraft and sang his songs with such believability that we feel privy to his world, despite the fact that he left no in-depth interviews and just a few letters. His brief life and tragic death have only compounded his anoneal.

With his seductive musings on love and ruin, Williams didn't just embody the honky tonk ethos, he practically invented it. Dirt-poor and rail-thin, he blazed out of Alabama in the late 1940s with the go-for-broke fervour of a man whose days were numbered. The emotional clarity of his voice spoke to millions, and by the age of 25 he was country music's first superstar. Four years later, overtaken by his own heart, he was gone - an icon to the world and an enigma to those who thought they knew him best. With the help of his family and closest friends, this film sets out to find the real Hank Williams.

FRI 23:50 I Saw the Light (m001qp35)

Biopic of country music legend Hank Williams, following his rise to stardom and troubled marriage until his untimely death from drink and drug abuse.

FRI 01:45 Top of the Pops (m001qp2q) [Repeat of broadcast at 19:00 today]

FRI 02:15 Top of the Pops (p00fsvgs) [Repeat of broadcast at 19:30 today]

FRI 02:45 Top of the Pops (m0009tqf) [Repeat of broadcast at 20:00 today]

FRI 03:15 Top of the Pops (b07bfnxc) [Repeat of broadcast at 20:30 today]

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