Those features persisted throughout, so that mainly the musical reading was superficial. But that was the least of my problems. All the dialogue was cut, and, stilted as it may be, it does efficiently lead from one musical number to the next, as well as giving us a clear idea of the narrative.

In Bieito's *Fidelio*, a quite separate thing, we get mystifying snatches of Borges and Cormac McCarthy. Nor is David Pountney's 'translation' of the sung text any help. It is a strange mixture of styles, and not easily singable. Enunciation is on the whole poor, with Bell singing her heroic part beautifully but unintelligibly. Stuart Skelton is much better in that respect, and his singing of his aria was the musical high point of the evening. After he had been rescued — by Leonore pouring acid over Pizarro, who had gone in for self-harming while singing his aria — and the happy pair had changed into evening wear (a wretched touch), a string quartet came down in three glass containers and played the slow movement of Beethoven's String Quartet opus 132, omitting the andante sections: very moving, but quite extraneous to what we had seen and heard onstage. The coup de disgrâce was the appearance of Don Fernando dressed as a ludicrous fop, singing the score's most solemn music and shooting Florestan, who was resurrected by Leonore. Need I go on?

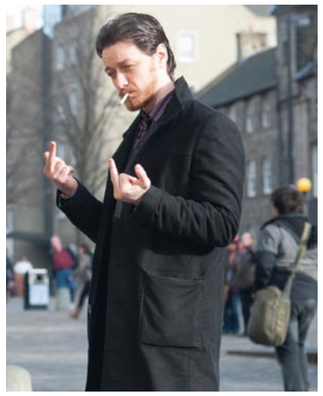
Cinema

Dirty work

Deborah Ross

Filth
18, Nationwide

People are generally saying *Filth* fully fulfils the promise of its title and is not for the faint of heart or queasy of stomach or lily of liver and, alas, I am all three, in spades. (My liver is, in fact, so lily-ish it may be a wonder of medical science.) Rape. Anal Sex. Violence. Drink. Drugs. Masturbation. Vomiting down yourself. There's a part of me that would like to say that's the average Saturday night in our house, but the truth is we generally watch *The X Factor* and record *Strictly*. So I endured this film, from behind my hands, rather than enjoyed it, but in the enduring, was there some reward, as can sometimes happen? We can work that out as we go along. No advantage in rushing such things.



James McAvoy: terrific

Based on the Irvine Welsh novel of the same name, it stars James McAvoy, who I should say, straight off, is absolutely terrific, and may provide the strongest reason for sitting through this. McAvoy plays Bruce Robertson and Bruce Robertson is Filth. He's Filth because he's an Edinburgh cop, and one of the nicknames for cops is 'filth', and he's filth because he is repellent; a brutal sociopath with no moral compass. He is racist, homophobic, misogynistic, vindictive. If he's not shoving coke up his nose he's drowning in whisky. He torments then sleeps with his best friend's wife (the magnificent Shirley Henderson, with a Cheryl Cole hairdo) and demands blowjobs from underage girls. He has no interest in solving crimes, particularly as he is otherwise preoccupied with gaining a promotion ahead of his colleagues, a darkly comic bunch which includes his coked-up sidekick, Jamie Bell, and, worst of all, not just a woman (Imogen Poots) but a woman who sees right through him, to what?

This is as much a journey through one man's mind as it is through Edinburgh's dark underbelly of general horridness and all the bodily fluids you can think of, plus quite a few you didn't know the body actually produced. However, as adapted and directed by Jon S. Baird, it has an energy, a verve, a glee and a relentless intensity that somehow keep you hanging on in there. It is fast, and inventive, with a discombobulating soundtrack of familiar Christmas tunes, and although there are many hallucinatory episodes — Bruce's pivotal relationship with his wife is largely told through hallucinatory episodes, and his relationship with his shrink (Jim Broadbent), plus there are animal heads — and one doesn't like hallucinatory episodes as a rule, just as one doesn't like dream sequences as a rule, these are always narratively clear, and psychologically revealing. And the deal becomes this: Bruce thinks he's a winner, at the top of his game, while we, the audience, know he is a loser and mentally unravelling. Think of Holden Caulfield, turned nasty and taken as low as a human can go, if not lower.

So, something of an endurance. There is even one of those scenes set in a warehouse-type room where something vile happens to someone tied to a straight-backed chair, and as soon as you see the room and the chair you know it's going to be awful. (And it is awful, from what I could gather from behind my hands.) But. But, but, but. There are some wonderful moments, including a trip to Amsterdam where Eddie Marsan, playing an otherwise timid accountant, lets it all hang loose, and Joanne Froggatt (Anna in *Downton*; a nice series for nice people) even turns up as Bruce's one chance at redemption. Mostly, though, there is McAvoy, who is one of those actors who can, by some process — I don't know what the technical name for this is, but it could be 'brilliant acting' — bring depth to emptiness, and although Bruce is never likeable, or even sympathetic, McAvoy offers us sufficient glimpses of the guilt and shame and self-loathing that drive him and, oddly, we begin to care what happens to him.

I was strangely hooked, and now I've seen it, I will always know I've seen it, just as I'll always know I've seen *The Night Porter*, for example, or *Clockwork Orange* or even that other Irvine Welsh-based film, *Trainspotting*. *Filth* is ghastly and unpleasant, but also kind of brilliant, and therein lies both the reward and the rub. Plus, I do think we all need to accept life can't be all about bland talent competitions, although, for the record, I would like to say it's not true that we watch *The X Factor* and record *Strictly* every Saturday night. Sometimes, we do it the other way round.

Counting the cost

The acclaimed television series *Breaking Bad* has ended. *Steffen Huck* on what it can teach us about economics

It has been the social-science equivalent to the Large Hadron Collider, the most expensive and most awe-inspiring experiment of our time. Like Cern's particle collider, it started in 2008 and this week, just six months after the Geneva researchers confirmed that they had found the Higgs Boson, it, too, has reached a conclusion. Walter White (above), hero of Vince Gilligan's *Breaking Bad,* is . . . (spoiler averted).

When *Breaking Bad* hit our screens, it dumbfounded viewers and critics alike with the sheer complexity of its narrative and aesthetics. The reviews were mixed and its future uncertain. The social experiment that the series set out to explore was strikingly simple: take an ordinary, law-abiding citizen and have him dabble in crime. Walter White

Simple graphs demonstrate the innocuousness and rationality of Walter White's choice

Sr, a failed chemical scientist-cum-high school teacher, who works after hours at a car-wash plant to make ends meet, is diagnosed with advanced lung cancer. Facing death and foreclosure on his family home, he goes into partnership with his former pupil-cum-minor drug dealer Jesse Pinkman. As a gifted chemist, Walt will cook crystal meth of unprecedented quality and Jesse will sell it. Just enough to make sure that Walt's family, his newly pregnant wife and his teenage son, who suffers from cerebral palsy, will be able to survive once he is in his grave.

It sounds reasonable enough, doesn't it? Well, it does to a modern-day economist. Changes in circumstance (the prospect of premature death) give rise to changes in lifetime income (no salary for the deceased) as well as relative prices for different goods and services (no punishment for the condemned). A small change in consumption and occupational choice are exactly what is called for. After all, life is all about trade-offs and when variables change some fine-tuning is needed. Simple graphs drawn on blackboards in every introductory class to microeconomics demonstrate the innocuousness and indeed rationality of Walter White's choice.

But then it all goes wrong. Walter's cancer goes into remission in season two, and whereas his old self (the one that made thoughtful lists about the pros and cons of killing an adversary before proceeding) would have changed course at this point, his new incarnation punches his mirror image in the face when the happy news arrives.

In the process of trading off morality against self-interest a peculiar thing has happened to Walter. Something has been destroyed. Roger Scruton, the British philosopher, writes in his enlightening treatise on Richard Wagner's *Tristan und Isolde*: 'We are tempted to live by rational self-interest, judging everything — the sexual act included — in terms of cost and benefit. *Homo economicus*, who exchanges duty for pleasure and value for price, seems to us to have freed himself from guilt. But if he has done so, we recognise, it is because he has freed himself also from love.'

And so has Walter White. While his initial choice was justified by love for his family, he now embarks on a course that will destroy the very essence of this love. For those who harboured hope for Walt and his wife Skyler, it all comes crashing down in episode 14 of the final season. The two of them roll on the floor; between them, shockingly erect, is a knife.

It is a Wagnerian plot that the show's creator Vince Gilligan confronts us with. Love and morality cannot be straightforwardly traded for power and wealth. We have seen

this before, but Gilligan makes it visceral and shockingly real. He explores a range of emotion, from the deeply sad to the ultra comical using a kaleidoscope of visual styles, from grim realism to grotesque pop imagery. Sir Peter Jonas, former director of English National Opera and intendant of the Bavarian State Opera, calls *Breaking Bad* 'the single most important aesthetic experience to be had today'.

When the mathematisation of academic economics began, its proponents introduced, for the sake of examples that could be illustrated in simple graphs, two assumptions: that all things could be split arbitrarily into small quantities and that preferences (i.e., tastes, judgments and convictions) were such that, when prices changed, one could always adjust choice just a little. Combining these assumptions with the doctrine that preferences never, ever change has led economists and most western politicians to the happy view that we can tinker with our existence without anything bad or dramatic ever happening.

This is, of course, what Walt thinks when he is confronted with his unfortunate cancer diagnosis. But some things simply cannot be divided and assuming that they can has catastrophic consequences — as at the beginning of episode 14, when Walt tries to negotiate a deal to save the life of his brother-in-law, DEA agent Hank Schrader. There is no compromise there.

Some commentators have alluded to Walter White's increasing schizophrenia as the plot progresses whereby he is torn between his original goal to save his family and his subsequent delight in becoming a superbly successful criminal. But there is no need to invoke schizophrenia; it is much simpler than that. Once his morality is out of the window, Walt is left only with extremes. In between there are just lies and it is perhaps Walt's worst foible that he excels at lying as no other.

Watching the *Breaking Bad* experiment takes some 50 hours. It is a ride that confronts us with the temptations and rewards of selfishness: Walt's sheer joy at being alive again, which, for a brief time, even invigorates his marital sex life, and the promise of wealth that allows him to leave a drab existence behind. It is no wonder that large parts of the audience have been rooting for Walt until the very end and it would be foolish not to acknowledge this Nietzschean element of the story, which epitomises the American dream of rags to riches through entrepreneurial ruthlessness.

Just as the Large Hadron Collider found a discrete particle that lends mass to matter, *Breaking Bad* has identified a similarly discrete, unsplittable moral element that lends meaning to existence and fibre to society.

Steffen Huck is professor of economics at UCL and director of Economics of Change at the WZB in Berlin.

Television
Myth mash-up
James Delingpole

This week saw the final episode of possibly the greatest television series ever. *Breaking Bad* wasn't made by the BBC, of course. Nor, so far as I know, did it make any attempt to buy the broadcast rights. That's because, obviously, the Beeb has far more important, special things to spend your compulsory licence fee on, in keeping with the Reithian tradition. Stuff like *Atlantis* (BBC1, Saturday).

Atlantis was designed to fill the Saturday evening family entertainment slot that has previously been occupied by *Merlin*. And I do mean 'designed'. It's so crudely manufactured it makes One Direction look like Led Zeppelin. It's as ersatz as a cup of acorn coffee in 1944 Berlin, as authentic as Jordan's breasts — and if ever I catch any children of mine enjoying it then it's off to China with them to have their organs harvested.

When *Merlin* came out, I think I may have touched, briefly, on the pain a man suffers when he has been to Oxford and read Malory's *Le Morte d'Arthur* — plus all the relevant Tennyson — only to find the whole of Arthurian legend traduced, cheapened and travestied by a screenwriting mate who hasn't had the benefit of so fine an education but who ends up making gazillions by cannily giving Merlin and Arthur boyband haircuts and reinventing them for the *Teletubbies* generation.

Well, *Atlantis* is more excruciating still. At least *Merlin* had the virtue of being loosely inspired by classic legend. *Atlantis*, on the other hand, appears mainly to have been inspired not so much by Greek myth (from which it nonetheless borrows shamelessly and indiscriminately) as by *Merlin* at its most cheesily derivative: the dashing young hero; the nerdy sidekick; the high-ranking female love interest; the stern king; the wise magician; the men running round with swords; the monsters; the jarring mix of faux-archaic language with contemporary yoof-speak.

All right, prime-time kiddie TV drama needs its archetypes. Hence, for example, the series' opening premise: diving in a submarine in search of his lost father, Jason (Jack Donnelly) finds himself in Atlantis, and is rapidly given to discover that he is, in fact, a native of the lost city, and that, aided by his remarkable acrobatic and sword-fighting skills, he is the chosen one whose task it is to do something jolly important . . .

'Percy Edwards . . . now he could *tweet.'*

Nothing wrong with that: even if it is the same basic plot as *Harry Potter*, *Star Wars*, *Lord of the Rings*, *The Matrix*, *Merlin*, and so on, it is a satisfying trope, tested by time, with which all solipsists, young and old, can identify. But why does *Atlantis* have to be so obvious about it? Before Luke Skywalker got handy with his light sabre he had to go through weeks of arduous training; ditto Neo in *The Matrix*. Jason, on the other hand, arrives with his powers good to go, as he discovers the moment he's attacked by lions and finds that, no problem, he can just leap balletically into the air, spin round a handy beam and pirouette out of danger.

You might argue that with family entertainment you need to keep things basic. But is this actually true? *The Simpsons* is abundant with sophisticated jokes that go straight over younger viewers' heads but which make grown-ups feel appreciated; at no point when writing *Lord of the Rings*, you suspect, did Tolkien ask himself: 'How can I take the very best of what I know about Old Norse and Old English literature — and then fashion a turd thereof?' *Atlantis*, on the other hand, appears quite determined to treat any viewer possessing more than half a brain cell with Olympian contempt.

The nerdy sidekick is called Pythagoras, by the way. When first we meet him he is drawing pictures of geometric patterns. 'You're the triangle guy,' declares Jason, accurately but depressingly. Has our civilisation really come to this: the man celebrated for the past 2,500 years as one of history's great mathematical theorists now gets reinvented as the light comedy interest in a crap kiddie TV ancient myth mash-up so contemptuous of its sources it has Jason (instead of Theseus) kill the Minotaur, and turns Hercules (Mark Addy) into a lovable porcine berk?

Now, briefly compare and contrast how difficult Vince Gilligan found it to get *Breaking Bad* commissioned: rejected out of hand by HBO (makers of *The Sopranos*), kept on ice by the FX channel, then rescued, fluk-ily, by the pay-per-view channel AMC. Gilligan found it such a struggle not because his concept was bad but because it was considered by most of the idiots in charge of deciding what we do and don't get to see on our screens too bold, too subtle, too original to capture the popular imagination.

Atlantis, on the other hand, I'm sure, was commissioned after barely a moment's consideration. Our civilisation is doomed, I tell you, doomed.

Radio
All change
Kate Chisholm

This time round in the autumn shake-up of the schedules it's Radios 2 and 3 who are on the frontline of change. They have had to face 'tough decisions' and to address 'the financial challenges due to the licence-fee freeze'. Radio 3 has lost most of its 'live' Saturday-night transmissions from the Metropolitan Opera in New York, on the grounds that they cost too much to set up. It's also given the chop to one of my favourite weekend programmes, *World Routes*, because of the 'high costs' of sending its presenter Dr Lucy Duran to far-flung places round the globe in search of unusual music. But this was never travel for the sake of it. Duran is an ethnomusicologist as much as a musician, and she woke us up to what music can sound like in the deserts of the Sahara as well as the frozen wastes of Greenland, making new connections through sound.

You might argue that after 13 years there were not many places left for Duran to visit. But we've also lost her programme's spin-off, the World Routes Academy, which gave young instrumentalists the chance to be taught by masters of traditional music, promoting and preserving what might otherwise be lost. Radio 3's mission was not just to send Duran out to unearth an unusual sound world, but also to ensure the music she heard and recorded would survive the creeping tentacles of globalised pop. These are the hidden benefits of public-service broadcasting — the willingness to give airtime to programmes that will only ever have a niche audience but that have an impact far greater than their minority status might suggest.

Make no mistake. We only have such programmes because of the licence fee. As a way of funding the BBC's output, on-screen, on-air and now also on-digital (as the Corporation is so fond of telling us), the TV licence might seem like a relic of the prewar era; appropriate only in an age when taking Ovaltine to bed was the nation's guilty secret. But what are the alternatives? Commercially funded stations, dependent on advertising and so constrained by the absolute need to maintain audience figures at a certain level? Or community stations funded by donations and subscriptions? Both kinds of radio have their place. Classic FM is chasing Radio 3 for listeners, and catching up. Local community stations have the appeal of small-scale, direct and immediate communication. But the BBC's worldwide reputation is dependent on the way it is funded. Take that away and there will be fewer and fewer 'live' concerts, and a gradual diminution of Radio 3's commitment to taking us into musical worlds far beyond Mozart, Mendelssohn and Mahler.

The acknowledgement by both Radio 2 and Radio 3 that these changes to the schedule have been dictated by funding cuts should make us stop and think. What next? Will Radio 4 staples such as *Poetry Please* be able to survive what might become a post-licence-fee world? Writing in the *Guardian* at the weekend, the programme's producer Tim Dee reminded us that it's 'the longest running (and now probably only) poetry request show on any radio station anywhere in the world'. It works so well because it's so simple. A half-hour of poems, selected by Dee and his presenter (Roger McGough) from the hundreds sent in by listeners, and read wonderfully well by professional readers (either stage actors or the poets themselves). No extras required. Just the words.

Or take this week's rebroadcast, on Radio 4, of Seamus Heaney (who died in August) reading his own translation of *Beowulf*. Prime-time Anglo-Saxon would surely be a no-no for any other broadcaster but the BBC. 'Out of the night came the shadow stalker' and wove his spell across the airwaves for 15 minutes each weekday morning as Heaney pounded through his 'word-hoard' to tell us of Beowulf's exploits against Grendel and other demons of the deep. It was thrilling stuff, and all for free every day this week, or (if you're being pedantic) for £3 for the week (the price of a single cup of coffee and breakfast croissant). Once again the power lay in the simplicity of execution: just Heaney, his command of language both on the page and in the way the words rolled off his tongue, a microphone and a static-free studio.

At the other extreme the late-night drama series *He Died with His Eyes Open* on Radio 4 (Tuesdays) credits a sound designer, Caleb Knightley. He's been responsible for turning a run-of-the-mill murder story (adapted by Nick Perry from Derek Raymond's novel) into a chilling thriller, starring Toby Jones as the dead man and Burn Gorman as the detective determined to find out what happened to him. Jones is heard only through recordings of his voice, eerily replayed by a very-present Gorman, and given a ghostly aura to make him sound as if he is speaking from the other side. Directed by Sasha Yevtushenko, this is classic radio (for those of us brought up on Paul Temple) with acting of the highest quality and a sound world that's so immediate it eats into the mind.

'Success is just around the corner.'

CULTURE NOTES

Pearl appeal

QATAR MUSEUMS AUTHORITY/CHRISTIE'S IMAGES

'Women spend more money on their ears in pearl earrings than on any other part of their person.' So said Pliny the Elder, who disapproved of the increasing fashion for pearls in the 1st century. It's lucky he's not around now to see the V&A's new exhibition *Pearls* (until 19 January), where there are natural, cultured and freshwater ones in abundance (including, at the end of the show, eight buckets stuffed with cheap freshwater ones from China, which produces — overproduces — more than 2,000 tons of pearls a year).

Pearls do not, as I thought, form around grains of sand in an oyster shell but are made by a parasite — mostly larvae of tapeworms — entering and disrupting the cells of a mollusc, which then secretes 'nacre' round the foreign object that over time becomes a pearl. The shape, size, lustre and colour of the pearl all contribute to its value.

More than 200 pieces of jewellery are on display, ranging from the 1st century to the present day. George III's beautiful gold, enamel and pearl buttons from his state coat are there, along with Charles I's pearl-drop earring that he wore at his execution, and a necklace given to Marilyn Monroe. Exquisite tiaras (Lady Rosebery's pearl and diamond one, above), brooches, earrings and necklaces gleam out from their cases — though I'm not sure I'd want what must be 4ft of necklace with eight rows of pearls and diamond flowers.

But, if you own pearls, wear them or they will lose their lustre, I was told rather firmly when I admitted that my three-row choker was languishing at the back of a drawer. I will, I promise. — *Liz Anderson*