Science in culture

A year in Pangaea

Walking With Dinosaurs, a BBC Television series (first UK episode, 4 October) Henry Gee

Makers of films about dinosaurs march in the footsteps of giants. There can be few who cannot remember watching, as awe-struck children, the doom-laden dinosaurs in Walt Disney's *Fantasia*, marching across the desert to the strains of Igor Stravinsky's *Rite of Spring*.

Then came *Jurassic Park*, Steven Spielberg's film (based on Michael Crichton's novel) in which the latest technology brought dinosaurs startlingly to life. *Jurassic Park*, said the publicists, was a film "65 million years in the making". The BBC's new series makes greater claims for itself. "Forget *Jurassic Park*," trumpets the hype. *Walking With Dinosaurs* is "the biggest thing on television in 200 million years".

In a series of six, half-hour episodes, *Walking With Dinosaurs* gives us snapshots of life from the Triassic (220 million years ago) to the end of the Cretaceous period (65 million years ago). Each episode follows, quite deliberately, the format of a standard wildlife documentary.

As a genre, such documentaries are remarkably formulaic. They are usually called A Year in ... [insert exotic locale of your choice], and start with a bloated, blood-red sunrise. They plot the lives of animals over the course of a year and contain lines such as 'The herd of [insert herbivore name here] is nervous as a lone [append carnivore name of choice] approaches. The [carnivore] is desperately hungry. She hasn't eaten since last Tuesday fortnight and this is her last chance to feed her cubs/pups/chicks/kittens (delete as applicable) before the dry season. If she doesn't get a meal now, her [offspring name] will die - victims of the ceaseless, merciless Struggle for Existence." The credits roll over a bloated, blood-red sunset.

Judged from the first episode, at least, *Walking With*



Dinosaurs

follows this

charting the

tradition,

lives of

various creatures over the course of what might be called *A Year in Pangaea*, weaving — in the cause of reanimation — known fact with various degrees of speculation.

In the first episode, for example, we meet a breeding pair of mammal-like cynodonts living in a burrow (for which evidence exists), laying eggs (a reasonable inference), suckling their young (rather more speculative) and pairbonding for life (ditto). A baby cynodont is eaten by a marauding *Coelophysis* (a predatory dinosaur) and the cynodont couple, looking like demented, mutilated badgers, waddle disconsolately off (stage left) to make a new home.

As a wildlife 'docu-soap', it all works beautifully. What is worrying, though, is the mixture of fact and speculation melded into a seamless whole: this is fine for drama or science fiction, but I question whether it is entirely proper for something billed as a science programme. This is where comparisons with *Jurassic Park* become rather awkward.

In *Jurassic Park*, for example, the predator *Dilophosaurus* has bright warning coloration and the ability to spit venom. We could not possibly

know or infer, from the fossil remains, that *Dilophosaurus* has any such attributes: but this is an example of precisely the point that *Jurassic Park* is trying to make. That is, if people insist on tampering with nature, such as by recreating dinosaurs from ancient DNA, they will be forced to contend with a variety of unguessable consequences.

Things are different for a wildlife documentary, in which viewers should have the

right to expect that everything is true; or, if it isn't, they should be able to tell fact from fiction. This is not the case for *Walking with Dinosaurs*: what will parents and teachers do when inquiring 12-year-olds insist that cynodonts suckled their young? It was on the BBC, so it *must* be true.

But more ominous problems loom. In the cause of narrative, the programme discusses the evolutionary fates of creatures in very old-fashioned terms, talking of "the day of the dinosaurs" and "missing links" as if evolution were nothing more than a *scala naturae* animated by natural selection. This way of thinking of evolution — as the working out of preordained fate — was on its last legs in the 1920s and completely abolished by the advent of phylogenetic systematics in the 1960s and 1970s. Why, when palaeontology has come so far, do programme-makers still peddle concepts as antique as alchemy?

BBC

Leaving these problems aside, the script is so relentlessly monotonous that even the prodigious skills of the narrator - the actor Kenneth Branagh — cannot animate it. Everything in the Mesozoic world is seen as doom-laden: an animal must be constantly vigilant in case something bigger threatens to bite its head off. A sequence in which a small pterosaur takes a bath in a puddle could have been an excuse for some lightness in the gloom, but no: we are told that the benighted creature takes a terrible risk and doesn't know the grim end that fate has in store for it. This depressing message of doom, doom and more doom is emphasized by a score that sounds like one long, half-remembered excerpt from Gustav Holst's Mars, Bringer of War.

Which brings us back to *Fantasia*. Truly, a programme on dinosaurs, even one as ambitious as this, cannot escape its influences. A sequence in the first episode has a herd of *Placerias* (looking like mobile sofas with teeth) trudging across the desert — a scene guaranteed to bring *Fantasia* to mind. The genius of the Mouse (aided, in this case, by Leopold Stokowski) was to think of a Stravinsky soundtrack. In *Walking With Dinosaurs*, we have to put up with imitation upHolstery. *Walking With Dinosaurs* will be a hit, but as Noël Coward once said, one can only marvel at the potency of cheap music. *Henry Gee is a senior editor at* Nature.