

ENTERING THE WORLD OF TV MAKE-BELIEVE

John Minson dallies awhile in Knightmare Castle



Imagine a world where anything can happen, a castle where every room holds a new peril, a possible trap. Imagine a dungeon into which a single adventurer may venture, but only if he or she is wearing a magic helmet which reduces the wearer's field of view to a small area - directly in front and downwards. Imagine a game show in which the only prize is success within the dungeon... and the cost of failure is death. Imagine the world of *Knightmare*...

Knightmare is the new series from Anglia Television, which has taken the idea of the adventure game and transported it to the TV screen. It's being broadcast every Monday across the ITV network, and though its been scheduled into a children's slot, the show is destined to pick up a devoted following of all ages.

It's also set to run for a mere eight episodes, but I'm willing to bet my favourite broadsword that we'll see a new series before the year is out. In fact American TV wants more than that - executives who've seen the pilot programme have made noises about a run of 50 shows!

All of which is gratifying to everybody involved in the series, but especially to its deviser, **Tim Child**, who spent two long years persuading The Powers That Be that a show as boldly innovative as this was possible.

But what is *Knightmare*? As the series only started on September 7th (and in a frustratingly early slot), there's a chance that some people won't have caught up with it yet. In fact, at the time of writing it hadn't

even started recording.

So the first thing that Tim and Anglia's Press Officer **Tom Walshe** did when I arrived at Anglia's Norwich HQ was to sit me down in front of a video recorder to view the fifteen-minute pilot that had persuaded the company to embark on their own adventure into this untried area of television. And, boy, was I impressed.

GRISLY GRAPHICS

The show begins with a narration that sets the fantastic scene, as a computer animation of a helmeted head strips away to a face, a skull and finally to two eyeballs. This grisly graphic prepares you for the horrors to come, and reappears during the game to

Tim Child, deviser of KNIGHTMARE, involved in yet another script conference with the show's producer, Sally Freeman



indicate the adventurer's strength.

Then it's time to meet Treguard, the bearded dungeon master who hosts the show from the safety of an antechamber, though he does manifest himself in the gloomy caves to offer advice and words of warning.

With the preliminaries over, the adventurer is introduced - using TV wizardry the contestants are plucked from our dimension to materialise in Treguard's presence. Three aides accompany the voyager, and they watch the action from the sidelines, thanks to a little basic TV studio magic, shouting instructions to their blindfolded friend.

From here on in it's adventure all the way... at least until the adventurer has made so many mistakes that his strength is reduced to zero and the four players are returned to the mundane world of late buses and school. Only a few will manage to penetrate all the levels - and by so doing, gain their freedom.

If you've ever played an adventure game on a micro you will have an idea of what to expect. The masked adventurer is the 'puppet' character who,

unable to see clearly, is commanded by the other three players. Instead of typing in 'Go North' at a computer keyboard, they might shout 'Walk forwards a little' or some other appropriate command.

OPEN-ENDED

Where *Knightmare* differs from a computer game is that it's totally open-ended and anything can happen. If a team tells their hero to pick up an object, he will do so. There are no 'You can't do that' or 'I don't understand' messages in these caverns.

The experience is much closer to role-playing games like *Dungeons And Dragons*, where the players can suggest any course of action that they think fit... and somehow the Game Master has to find the rules that allow them to do it.

Each chamber of the *Knightmare* castle presents its own perils, from giant snakes to uncouth druids who insist on referring to the adventurer as 'Dogsbottom'!

Sometimes the only way out will be to run, guided by the advisers who must make a snap decision about which path to follow. Or perhaps there will be some humanoid dungeon denizen who demands a particular treasure or the answer to a riddle before allowing anyone to pass.

Either way, success means that the 'completed' room zooms away, to be

replaced by the next one, rather like screens flipping in an arcade game. It's a small reminder of the television trickery that's creating the magical world, but more about that later.

Like all good adventures, *Knightmare* continues through a succession of increasingly difficult levels, with ever more dangerous apparitions. The only thing that can stop an adventure, other than death, is time itself. Sadly the dungeons are not immune to the constraints of television, and adventures are broadcast in half-hour episodes.

But the participants will escape the temporal disruption of 'natural breaks' because, as producer **Sally Freeman** explained to me, adventures will be recorded in one session, whenever possible, to keep it all vivid in the minds of the players.

As the titles rolled, Tim told me that this was in fact the second pilot that had been made, which is something of a surprise. Most new shows have one experimental episode, and that is usually meant for transmission.

TV REALITY

But in the case of *Knightmare* the pilots were made to prove that Tim's brainchild could actually be turned into TV reality. Some television producers seem to have an in-built distrust of anything to do with computers - despite their job of choosing what

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young people see, they're far from young themselves.

There's very little real understanding of RPGs or computing inside TV companies - unless it's yet another demonstration of how wonderful the BBC Micro is for book-keeping. The common reaction of executives seems to be that nobody would want to watch people just playing a game.

All of which is probably true in itself, but Tim had realised from his experience presenting *The Soft Spot*, a local computer programme, that this new form of entertainment wasn't a threat to television, but that programme makers could learn from hi-tech leisure. His constant adviser in his quest to convert those thrills to the TV screen was his son, 11-year old Ben, who's also his harshest critic.

Tim saw that by taking the best elements of board RPGs and the problem-solving of computer adventures, he could create a game show that would break all the rules of TV. It wouldn't offer prizes and it wouldn't have a set pattern... but it could be superb television.

So he scraped and cajoled and somehow managed to make the first pilot on a budget of nothing, and it cast its spell on the Anglia executives who put up money for the second one.

The first questions Tim faced, two years ago, were about the nature of the show. RPGs provide a versatile

ART FOR THE COMPUTER

Even if **Dave Rowe**'s name doesn't immediately ring bells, you should recognise the man's artwork from countless computer game inlays. For example, he's the man behind almost all of *Starlight*'s illustrations and a good number of *Firebird*'s, and he provided the painting used for the *Softaid* inlay.

Recently though, Dave has been forced to turn down work because his time has been taken up with one major project... the backgrounds for *Knightmare*.

His involvement started two years ago when Tim Child contacted **Paula Byrne**, currently a senior executive at Telecomsoft (the people behind *Firebird* and *Rainbird*), but then at Melbourn House. He was looking for the name of a good fantasy illustrator, and Dave's name sprang to mind immediately.

ART FOR ART'S SAKE

As we've already said, there was virtually no money for that first pilot, but Dave produced three pictures with overlays to extend their versatility. Then, when the time came to produce the second pilot he produced eight more... this time getting paid for his troubles.

Dave was still sweating away to meet the deadline when I met him - you just can't be late when a TV series depends on your contribution. But he says he's enjoyed the experience, and learned a lot from it. He's also pleased to report that none of his paintings have come back for alteration.

After some initial meetings in Norwich, when he got a chance to experiment with the *Supernova*, Dave started work at his home/studio just outside Winchester, and soon got used to working to the strict perspective grid.

He now receives details of the rooms from Tim, often via his newly-installed fax machine, and from these produces a pencil sketch. At this stage he can work out if there will be any other blue flats needed, for pillars or boulders for instance. He then paints a rough version of the scene to check out the colouring and details.

ADDING TEXTURE

The final stage is the painting itself. One of the most important features in a finished painting is the use of texture, and to this end Dave's been experimenting with various techniques. For example, as an alternative to simply using an airbrush, he's been waxing the paper so that the ink clings to it in drops.

To help him get the stone effects he's got a library of slides shot in places such as Winchester Cathedral. He also sends off sheets of texture to Anglia, so that they can be used as 'paint' when the picture is converted into a computer image.

But Dave says that though he's extremely impressed with the *Supernova*, he thinks that in the long run he'd need a strong drawing to start with, before he could work with a computer. And with 24 more rooms to have painted by Monday he doesn't really have the time to learn the techniques of new technology quite at the moment!



The master at work: David Rowe completes yet another painting for incorporation in the KNIGHTMARE system

It all starts with a written brief which leads to pencil roughs...

... that develop into finished paintings



The actors have to convince the adventurer that they really are wizards, knights or whatever, otherwise the illusion is ruined



A CHROMA-KNIGHT

framework and can cope with a number of different adventures, but Tim decided to go for the Middle Earth milieu as the most durable.

Next came the question of production techniques. The idea of doing the thing for real in an actual castle with an outside broadcast unit was soon rejected as too constrictive. Instead Tim decided to use techniques which were already commonly used in drama productions and adapt them to the game.

CHROMAKEY

The secret of all those rooms is a technique called Chromakey. You stand your actors and solid props in front of a blue screen. Now, by the miracle of vision mixing, the director can superimpose a signal from another camera onto the blue area.

That's why the adventurers wear the helmet with limited vision. All they'd see, down on the studio floor, would be a lot of blue sheets. But in the ante-chamber the aides are able to watch a properly mixed version on a heavily disguised monitor, so that they see their hero crossing marble tiles towards a crumbling arch.

Though the technique is common enough in TV, providing everything from sci-fi spaceship backgrounds to weather maps, could it be shown to work in a game series where anything can happen?

The first problem is that to match the perspective of the scene with the angle of view, the chamber has to be drawn to a strict grid and the camera has to be fixed in a single position.

The second problem required a rather more complex solution. An adventurer may choose to go through one of up to four doors, which could

lead to a break between rooms. Some way had to be found of choosing scenes instantly...

The answer came in the form of a computer - namely a 24-bit Spaceward Supernova, which uses 120Mb optical disks and comes in around the £85,000 mark. Suffice to say that Dixons are unlikely to be stocking this particular model!

The Supernova lets Sally Freeman summon up chambers at the press of a button. Furthermore, if she wants to intercut a close up into the action later, the computer can automatically provide the correct viewpoint for the superimposed backcloth, thus providing much more visual variety.

RICKETY TREADS

During the development phase the team was learning what could be done and refining techniques. Instead of relying on flat blue cloths, why not have other cut-out objects, so that the scenery has depth? There's nothing to stop you using a set of blue stairs which can be transformed into rickety wooden treads thanks to Chromakey.

With the technical problems in hand, the other important factor was to develop a convincing tone for the shows. Role-players are, on the whole, serious types who like to believe in their adventuring. That's why the recording had to be free from breaks.

But Tim also had to get the right sort of players for the teams who would enter Knightmare castle, so he put out an appeal for 12 to 14 year old fantasy fans to come forward. The response was staggering, according to Sally. She toured the country auditioning potential dungeoners, armed with a set of questions provided by Tim.

DRAGON QUIZ

This taught the Knightmare team another lesson - they would have to get the details of their fantasy world spot on. Sally recalls one meeting in Leeds where one of the youngest groups she saw came into the audition. Consulting the quiz, she decided to start them with what looked like an easy question and asked how many legs a dragon has.

To her consternation they immediately asked what kind of dragon - red, green, gold? Just the normal type, she gasped, trying to cover her ignorance. As they got the answer right she made a mental note to kill Tim when she next saw him! By the way, that young team will be appearing early in the series.

Tim reports that the skill of the contestants caused slight problems for the people responsible for granting Knightmare a network slot. They had reservations, based on the belief that the puzzles were too difficult and should be geared to the viewing audience so that everyone at home could shout out the answers.

But Tim wouldn't compromise. The kids, he explained, were just so sharp that they'd romp through the castle if the puzzles were made easier, and in a show where there are no prizes and the competition is against the game itself, that would hardly be suitable. Luckily his arguments prevailed and he now reckons it will take a full three episodes to trace a path to the final level, and even then a team won't have unlocked all the castle's secrets.

This left Tim the mammoth task of writing scripts to cover every possible situation and Sally the stress of keeping track of all those words. She

reckons that much of the effort is spent looking after these details, so that she can react immediately, whatever happens.

It's also a challenge for the actors who appear as dungeon dwellers, because they can't rely on set speeches. For this reason Sally and Tim have chosen actors very carefully, only using the best people they could find.

The actors have to convince the adventurer that they really are wizards, knights or whatever, otherwise the illusion is ruined. There's one striking sequence in the pilot show where a wicked queen quizzes a contestant, who obeys her immediately thanks to the strength of her performance.

ARMLESS?

One thing that was missing from the pilot was magic, which now plays an important part on the path to success. Adventurers enter the dungeons unarmed, but they can pick up spells en route, and using them successfully is a test of (you guessed it) spelling. That may not sound very exciting in itself, but Tim says that the ritual of remembering a spell name under pressure is extremely tense - especially as failure can result in the magic being turned back on the user!

There are also warriors who may work with the adventurer, providing the correct answers to their questions are supplied. Folly the Jester keeps turning up too, offering hints. And there are even talking objects!

Tim observes that the saddest thing is that they're writing a vast amount of material, much of which will never be used - it's vital to ensure that no two sessions will ever play the same and that almost every eventuality is prepared for.

Sally, meanwhile, would like just one day off every week, but reckons it's unlikely that normal working patterns will be restored until the final brave, be-helmeted adventurer has bitten the dust. Making Knightmare capable of being played as effortlessly as it does calls for an incredible amount of work behind scenes.

But it's work that's well worthwhile, as far as I can tell, because the result is a show like nothing you've ever seen before. The possibilities are almost endless.

Once the techniques have been proved to work (Tim and Sally's main worry when I spoke to them) and the series has proved popular - about which I have no doubts - then it's time to look at further developments. Like a science-fiction scenario. Or maybe an adult version (and I've already put my name down as a contestant).

Whatever happens, Knightmare is just the start of the adventure.

Television producers seem to have an in-built distrust of anything to do with computers

A DUNGEON IN YOUR FRONT ROOM!

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Anglia were selective in who they approached, and only three top companies bid for the title. In the end it was Activision who won the rights, and late November should see the release of 'Knightmare the computer game' on the big three 8-bit machines. ST users will have to wait until next January before they have a chance to sample its delights.

The programming team is headed by John Dean. Also involved are Mev Dinc of Prodigy fame and graphics artist Nick Cooke who did Endura Racer on the Spectrum.

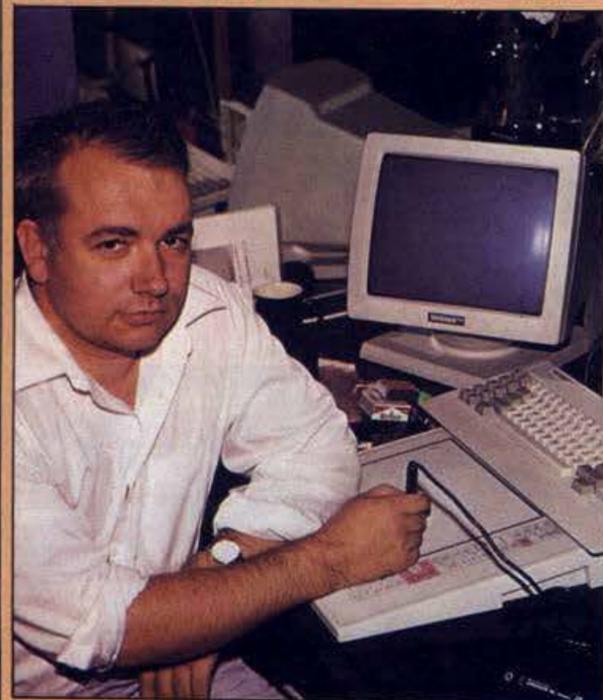
lies. You have to learn to use both wisely. And there's Treguard, who introduces the game and materialises from time to time with warnings.

John didn't want the game to be limited to experienced adventurers, so he set about designing a friendly method of communication, which he's called the Word Gears. You spin two gears to scroll through the commands, then type in their initial letters to use them. Everything then appears on screen in speech bubbles.

PERSPECTIVE

The game's graphics will match the those of series as closely as possible, using the same perspective viewpoint. Even in the case of a machine with limited graphics capabilities like the Spectrum (for which the first version is being produced), monochrome drawing and careful shading will be used to suggest the Supernova effects.

GOING SUPERNOVA



Freelance graphics effects man, Robert Harris, doodles on the Supernova

Robert Harris is the man who's responsible for turning Dave Rowe's paintings into images which can be called up from the Supernova's potential store of 1024 hi-res frames.

Robert used to work with the BBC - you may have seen his effects in the TV version of Hitch-Hiker's Guide To The Galaxy - but he left the BBC to go freelance when he heard about Knightmare.

Now he takes the paintings provided by David Rowe and manipulates them, using the Supernova, so that doors suddenly appear or a truly disgusting 'stomach' room pulses and churns through 16 frames of animation.

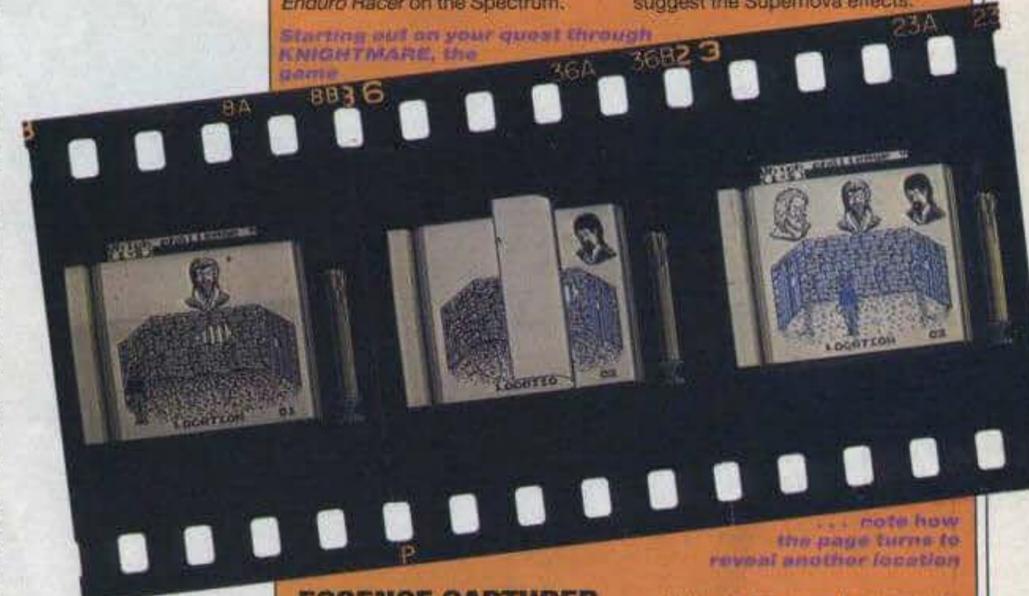
The Supernova offers tremendous potential. Robert can choose the texture and colour from a section of wall then, using an electronic pen and drawing pad, can spray paint and cover an arch with it. The opening can then be made to reappear with the flick of a button.

He's also developed even cleverer techniques when it comes to the dungeon monsters. The obvious way of creating an animated creature would be to store it as a 3D pattern inside the computer - however, as well as being more difficult to manipulate, this would also mean constructing a model. What Robert has done is to combine the best of the old and the new. As well as his computer room he also has a small animation studio, where the monster is made out of clay and animated through a movement cycle. Each step is shot by a video camera and digitised.

The digitised frames can then be used in a variety of ways. Robert showed me how he can use the image of a spindly creature as a solid template, spraying white around its outside to give a shimmering, luminous effect. He then reversed the template and coloured the inside, to make it solid. By doing this to each stage of the animation he was able to superimpose the creature in the scene in a fraction of the time it would have taken otherwise.

The most striking thing about Robert's graphics is the quality of light. Every object, whether it's solid or painted, casts a shadow, and the electronic backgrounds seem to glow, casting a strangely hyper-real light around the dungeon.

Though Robert jokingly describes the whole programme as being something like a maths exam (because of the tight perspective grid), the result looks totally unmathematical. I would have sworn that those stones had been gathering dust for centuries.



ESSENCE CAPTURED

As John Dean told me, the team felt that they couldn't follow the series totally, so they decided instead to capture its essence. Central to this is the idea of a book which contains the tale. The screen is split into two pages, which turn over extremely realistically as you move from room to room. Down the side of the screen is a candle, which burns away as your life force ebbs.

The player commands an animated adventurer, complete with helmet, much in the way that the team does in the series. There are also oracles, who appear with advice. But while one oracle is good and tells the truth, the other always

Although the game's complexity demands the use of a multi-load, this will be implemented in logical sections. Each location offers a probable occurrence, and each time you visit the room, that probability increases.

Because of the problems involved in developing new techniques, progress was quite slow in the early days, but now the home micro version is progressing at speed and John has no doubt that Knightmare will be just as big on home computers as it will on TV.

