

GTC WORKSHOPS

GOING TO EXTREMES

Report: Michael Jay Pictures: Clive North

GTC Lecture 18 April 2015 NFTS Beaconsfield

Ever wondered how they film on top of Mount Everest? Or in the deepest jungles? And just how do they get those incredible underwater shots in caves or under the North Pole?

And who takes them?

Well, two of the best, Kevin Augello and Gavin Newman, generously shared their expertise with GTC members at this year's GTC Spring Workshop entitled Going to Extremes, an extremely apt title for an extremely fascinating subject.



The first speaker, Kevin Augello, started his own company, New Earth Films, some ten years ago with a view to personally filming a wide range of subjects such as adventure, culture and wildlife, and has worked in 152 countries with almost every respected broadcaster on the planet including the BBC, BBC Natural History Unit, National Geographic, Discovery Networks, PB and Al Jazeera.

Inspired at the age of twelve by seeing Indiana Jones, Kevin nevertheless thought fiction production would be rather dull and so decided to concentrate on making action documentaries at the ends of the earth.

His first big adventure was hitch-hiking to Pakistan at the age of seventeen. More followed with his first filming job working on a series about Greenland with his natural love of bush-craft adding to the pleasure of travel to such distant lands.

A spectacular show-reel introduced Kevin's talk which focussed mainly on polar, desert, and rain forest environments with the main objective of getting everyone to think hard before they leap into a job that might have deadly consequences.

Particularly emphasized was the serious and possibly fatal effects of high altitude on the human body. One example of this was an Everest expedition where two people out of a team of twenty died. Another concerned a disabled climber's attempt to scale Everest during which, despite a heroic effort, the subject of the film suddenly passed away within reach of the summit.

To see what can happen in such circumstances, watch the film *Miracle on Everest*, the incredible story of cameraman Lincoln Hall, who was pronounced dead due to the effects of altitude but subsequently survived.

We were all surprised to see that one of Kevin's still photographs showed some small dots on the mountainside which, he explained, were the bodies of those who did not make it. Any rescue attempt is just too difficult or too dangerous and so they are simply left there. Serious stuff, indeed.

The audience, which included both male and female prospective adventurers, was kept involved by Kevin dividing them into small groups so they could make their own plans for expeditions after which he asked each group for their suggestions to ensure a successful outcome.

Starting with weather and navigation, most of the normal ideas were put forward but some were new. In spite of modern reliance on GPS navigation some of the suggestions introduced the audience to more ancient methods such as the sextant and the sun-compass. Even in our digital age there is still room for traditional gear that does not use batteries!

The talk was kept lively by Kevin showing some of his equipment and answering questions as to what's needed not only to film, but also survive, in such faraway places. This included everything from mundane items such as shovels and sand-mats for the car right up to the latest satellite telephones.

And apart from the wide range of camera gear, expert knowledge of bush-craft and survival is essential as expeditions can

come under extreme pressure not only from natural causes such as weather but also political problems such as riots and terrorism. All can be deadly so using local knowledge to make sensible decisions, and sticking to them, is a life-saver.

On one such trip, Kevin followed the advice of the local experts and stayed in his hotel despite being urged by the director to accompany the crew to film in a bush area known to be the haunt of militia gangs. Some time later they all returned looking highly chastened after being robbed of everything and coming very close to not even making it back alive.

Clearly, discretion can be the better part of filming!

Health, food, communications and transport were all dealt with by getting each group to put forward their ideas with Kevin pointing out some of the lesser-known subjects such as search-and-rescue insurance.

What to eat was a question which also aroused interest. Even in the UK winter it is essential to keep warm, dry and fed but at high altitude or at the poles this becomes critical and an average food intake of 6000 to 8000 calories is the norm. What provides this? Well, peanut butter and chocolate are the favourites so this is clearly no place for anyone on a diet!

In spite of modern aids like satellite telephones Kevin emphasized that it is still essential to be able to look after yourself and to that end he produced his personal survival kit, a military-style set of pouches which he can don at a moment's notice and which contains everything he needs to stay alive until help arrives. Medical kit, tools, food, fire, radios and an emergency rescue beacon were all there in one easy-to-grab package.

This pack is not worn all the time but kept within easy reach. He explained that, in spite of colleagues occasionally asking to borrow things from it, it was absolutely vital that none of this equipment is touched unless he is in a real survival situation. We all know how small things can get borrowed and forgotten and missing items could prove fatal when the crunch comes!

After listening to all the problems, everyone breathed a sigh of relief that we were still snug and warm in the UK. I'm sure

we all find it hard enough filming in normal circumstances without having to contend with heat, mud, sand, snakes, avalanches and terrorists!

Although it was clear that Kevin's unbounded enthusiasm and passion are what drive his productions, he stressed that it is not much good getting a shot if you are dead – so proper training and planning are essential. There is simply no room for error when hanging off the top of a mountain.

His enthralling films were not only spectacular but entertaining, too, but don't be fooled – these films all required huge skill and preparation.

So, when not on his expeditions, Kevin runs training courses of various lengths covering camerawork for complete beginners right through all aspects of documentary production from conception to broadcast.

One of the most difficult nuts to crack is getting your first break and one of these courses will even guide you on how to do that.

Others are designed to help you work safely and successfully in hostile environments with everything covered including planning, logistics, legal matters, survival, weather and war zones.

Classroom and field training take place not only in the UK but also in specific environments such as alpine and jungle areas. Naturally, the longer courses cover more but all the information is aimed at giving you practical knowledge you can really use.

The essence of Kevin's talk was 'Don't Become the Headline' and 'Think before You Go'.

There is no substitute for practical knowledge from someone who really knows how to do it and Kevin clearly enjoys passing on his vast knowledge and experience.

if you would like to attend one of his training courses, you can contact him at www.new-earthfilms.com



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'GOING TO EXTREMES'

Report: Michael Jay
Pictures: Clive North

part 2:Gavin Newman

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Ever wondered just who takes those incredible underwater shots in caves or under the North Pole?

Well, Kevin Augello and Gavin Newman, two of the world's best adventure cameramen, generously shared their knowledge with GTC members at this year's GTC Spring Workshop entitled Going to Extremes. As the previous edition of In Focus only had space to cover Kevin's forte and we don't want to disappoint – here is the rest!

GTC award winner Gavin Newman specializes in filming a different world to most of us, almost a different planet, and one which had the whole audience holding their breath. For Gavin specializes in extreme underwater filming.

Although Gavin initially attended a course in Photography, Film and TV at Harrow College, he said he feels that a degree is not really necessary and that the real teacher is experience.

After starting cave diving at an early age, and taking still photographs on Kodachrome in order to show others the wonders that he saw, Gavin moved on to producing complex multi-projector audio-visual shows after which it was seeing Sid Perou's cave work for the BBC that inspired him to start filming underground.

But it was only after he met Leo Dickinson, the famous action cameraman, that Gavin really got going, illustrating Leo's inspiring work with a clip from his film *'The Falcon that Flew with Man'*. He said Leo was a great teacher but, like all good teachers, prone to extremely blunt criticism!

After some early work, including filming undersea nuclear waste discharge pipes near Cherbourg for Greenpeace, he received a call from the BBC to film caves and sea as an assistant on the *'Planet Earth'* series.

'Planet Earth' was intended to show only the planet and no humans but Gavin soon found that films made underground need to include people in order to give a sense of scale especially as some of the caves are of truly incredible size. His films of

the Lechuguilla Caves in Mexico and the caves in Mulu National Park, Borneo, were magical – and the large cinema screen truly made the audience feel they were in there swimming alongside him – so much better than a small TV screen. Superb results from a great imagination with a spellbound audience holding their breath!

One aspect of filming such a place is the need to make absolutely sure that the cave itself is not damaged. Equipment can be replaced but rock formations which have taken millions of years to develop cannot.

Rather less beautiful than the caves, but equally spectacular and haunting, were Gavin's scenes of whales filmed for a Greenpeace anti-whaling campaign and his film shot from sea level of these wondrous animals being dragged up onto the whaling ships and cut open was truly heart-rending. All this while under attack from the whalers showed that not all his work is done in peace and quiet.

One characteristic of cave filming is that it almost always requires artificial light. One way to do this is to take a series of still pictures with flash and put them together as in animation but, naturally, this is extremely time consuming – one such program took three weeks to shoot a one-minute sequence. Green spots in his first attempts at this had him puzzled – until he realized that the flash's green 'ready' light was showing up in the pictures!

But, for most filming, continuous light is required for caves to be lit properly and this is where Gavin ran into a problem. Not only did the lights have to be waterproof, they had to be pressure-proof,



too. Initially, he looked for professional lamps such as those used on oil rigs but these proved to be incredibly expensive and not really what he wanted. So, after some experimentation which included dismantling the expensive lamps to see how they were made, he decided to build his own using LEDs, car bulbs and flash reflectors. This meant getting a lathe and setting up a proper workshop but this has had the added benefit of allowing him to make not just the lamps but also camera housings and much of the other specialized gear that he needs. Fortunately, the colour rendering of such lamps does not have to be perfect as no-one really knows what the rocks should look like.

Even with such custom gear, the picture quality can sometimes leave a lot to be desired but Gavin says that, whatever the quality, you must get the shot. And a rough picture might even look more realistic!

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As an aside, Gavin warned that cave diving is really hard on equipment so it would not be a good idea to buy any used gear from him!

Another problem in caves underwater is getting the sound as there is usually simply no room for a sound recordist. Radio microphones can be used in certain circumstances but live sound is usually for a sync track with personal recorders being used to add voices later using Plural Eyes software.

Even normal breathing equipment can present problems as the exhaled bubbles can disturb whales and some fish species. To avoid that, a rebreather can be used but this entails its own special hazards due to gas composition, with possibly fatal results. As the audience found out, this is truly extreme filming!

One of Gavin's favourite programmes was the BBC 'Wild China' series, for which his cave filming won three EMMY awards. Seen on the big screen, there was no doubt why!

Naturally, one cannot simply walk into such places and start filming. Some caves are incredibly deep and long and so require full logistic arrangements both for filming and for survival with the team living underground for long periods. And sometimes the programme presenters need training as it is a completely new environment for them. Gavin feels that, although modern television often requires suspense and danger to liven up its programmes, caves are spectacular enough not to need either – meeting a shark face-to-face coming the other way was quite enough of a shock without adding more!

Although three of Gavin's friends have lost their lives diving in caves, he does not feel that it is particularly

dangerous. This is clearly because of his meticulous preparation and attention to every minute detail.

Even so, accidents can happen and then comes the decision as to whether to film it and show what happened. One such incident in a Spanish gorge required a 36-hour rescue involving a helicopter to bring out a diver with a broken leg!

To avoid any problems, Gavin always insists on having his own lighting specialists and safety crew as these are not jobs which can be entrusted to unknown people. Also essential is another safety diver beside him who can not only watch Gavin's back but also look after the presenter. Mutual trust is the key! With such a large crew required, cave filming is inevitably expensive and, naturally, all diving regulations must be adhered to even to the extent of having a decompression chamber on site. Diving in tunnels with no air space also requires a special dispensation from the Health and Safety Executive. Caves also require a fixed static line in order to find the exit.

A highlight of Gavin's talk was seeing his ROV, a Remotely Operated Underwater Vehicle, up close. This is a machine which is lowered into the sea on a cable up to 500 metres long and which is operated with a joystick from a control unit on board the diving ship.

Initially, he looked for commercially available ones but the first ones he saw, designed for inspecting gas pipelines, did not have a good enough picture quality for film work. So, after finding all



the commercially made ones were too big, too bad or too expensive, Gavin built his own. Although worthwhile, this has still proved expensive – Gavin said the cost so far had been around £150,000 with more development planned, and all at his own expense.

About the size of a small table, this machine can film at great depths without food or rest and has proved invaluable both for his own films and for scientific research. Its rectangular frame contains the camera housings, lights, motors, propellers and control gear together with a ferocious-looking pincer at one end with which he can grab samples of seaweed or other tasty items found at the bottom of the sea. Fortunately it was switched off when the audience gathered round for a closer look. On land, the ROV is quite heavy and it took four people to carry it out to Gavin's car. One problem in its development was finding the right kind of foam to make it neutrally buoyant. Finally, the right stuff was found and this appears as a large sheet on the top of the machine.

Gavin is constantly improving this marvel of engineering and has even built a test tank in his garden. Quite a change from the usual goldfish pond!

Although some of the larger cameras can weigh around 100 kilograms, Gavin often modifies cameras such as the Sony EX1 and PMW 200 to suit his needs saying that the small sizes and small lenses are ideal for his ROV.

Sometimes he uses a DSLR in tight spots but, whatever is used, all the pictures need colour grading because the water acts as a blue filter. The picture quality on the big screen from such small cameras was incredible.

One interesting point regarding colour was that fish see ultra-violet light and thus view their world in a completely different way to humans.

Gavin's latest project is filming the biggest cave in the world. To see more, go to www.underworld-productions.com

Thanks are due to Clive North and his team for organising a truly fascinating day. It was very clear that both our speakers, although modest, were highly skilled experts, really great guys very willing to share their knowledge with true passion.

If you missed it, you really missed something!