grand job in

With thanks to Paul Murton for the photograph

Multi GTC award-winning lighting cameraman Richard Cook on filming Grand Tours of the Scottish Isles, the popular BBC series that looks at island life today, exploring connections with the past and showcasing the spectacular scenery to be enjoyed in some of the most remote and unspoilt areas of the British Isles.

he Grand Tours of Scotland (GTOS) programmes (now extending to seven series, including the programmes specifically about the island regions) made by Scottish independent Timeline Films and shown on the BBC, have been extremely successful, selling worldwide and proving particularly popular in Australia and New Zealand. I have been very fortunate through working on these shows to travel to many incredible, remote areas of the country, something that just would not be feasible without a good excuse and a great deal of planning.

To me, the most important aspect of these shows is the emphasis on high production values across all areas, beginning with meticulous research and great presenting, and extending right through the sound, pictures and editing. The crew is small, comprising presenter Paul Murton, producer Arlene Jeffrey, director Kathryn Ross, Richard Paterson on sound and me. Whilst we have to shoot quickly and be mobile, it's been very important always to maintain a consistently high level

of image quality, whatever the story or location, and to take every opportunity to show Scotland as the visually spectacular place it is

The weather is a big factor as it changes so quickly. However, this can be a good thing, making the landscape come alive, especially when the wind is strong or squalls of rain are passing through; scudding clouds are great for timelapses and shadows racing across the heather always look dramatic.

This is a very fast-moving programme for a cameraman, allowing little time to fiddle with kit. We are regularly out for the whole day and far away from the van, so we need a very good idea what footage is required from the schedule in order to have the necessary equipment available. A typical day might, say, start on a fishing boat; next we could be off to some old ruins on a remote estate (getting either sunburnt or attacked by midges); and it might end with an interview in the evening with a Harris tweed weaver or historian

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Filming on water and keeping dry

Being an island-based series, boats play a large part in the shows, and we have been out on everything from Pelagic trawlers to small creel boats, cobles and kayaks. I really enjoy working on boats - but they do present issues from a camera point of view, with sea spray probably the biggest pain; some boats can be unbelievably wet, even in the mildest of conditions. Bouncing about on the sea with salt spray, plus high winds for good measure, can get challenging. Attempting to change lenses is hopeless in these conditions, so the best camera I have found for this by far is the Panasonic HPX3100 with two B4-mount Canon zoom lenses. At sea, zooms allow so much more flexibility.

I have tried various gimbals but find they actually dial out too much movement, meaning you dilute the very atmosphere of being on a boat you are trying to portray. Also, they are hopeless in the wet and it's very difficult trying to jump around on a deck with a gimbal. Operating when everything is moving about can be difficult enough without adding the complexity of a gimbal.

What has made my job a lot easier is plenty of previous experience of working offshore. This has given me the knowledge and confidence to ask the skipper to make a manoeuvre or head in a direction that will make things more manageable or, indeed, possible. This is often mainly in order to ensure

the presenter Paul looks good - having him soaked doesn't normally work and, on a practical note, his jacket will probably be in shot later in the day, so you don't want white salt-drying marks giving continuity problems.

HPX3100 and HJ11 lens

www.gtc.org.uk

I have built and modified various rain deflectors, which are invaluable for keeping the lens clear. Spray from the boat's wash and rain just disappear, leaving a nice clear shot. By the way, this is another reason why gimbals can be limiting: fitting rain deflectors becomes problematic as they are quite big and need their own power supply. Unfortunately, the deflectors drive poor Richard, the soundman, up the wall because they are very noisy, but if he needs sync sound I will try to shoot with my back to the wind and keep the lens dry that way, or work on a long lens, or - if all else fails - get the helmsman to turn up the engine revs! I have also made my own rain covers as I haven't found much available commercially that is suitable for shoots such as these. If the conditions get very bad, the Sony a7s mkll in an Ikelite underwater housing or Canon C300 in an EWA bag come out, but these can be slow and cumbersome to use.

Once in an occasional while, the sea is just flat calm and sunny, and then the whole experience changes, becoming as beautiful as the Caribbean. However, even then, Paul's catchphrase is: "It's going to rain"; after all, it's Scotland, so if it's sunny now, it's probably going to rain soon!

Grand Tours of the Scottish Isles



Equipment choices

I do really like all the S35 cameras (Sony F55, Canon C300 mkll etc.) and the look they give you, but for fast action requiring a long zoom. I find they just don't work as well as a 2/3" chip camera.

Finding the optimum lens can be tricky. The Canon CN7x17 KAS S E1/P1 is great for many situations but often not guite wide or long enough for GTOS. The HJ11 x 4.7 with HD35

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The spectacular Suilven Summit in Sutherland

adapter, however, has no size or weight advantage and is generally a bit soft at the wide end... so a compromise has to be made. To solve the problem, I have started carrying both systems in order to achieve the camera/lens combination that works best for each individual subject. A nice set-up piece will always look great with primes, especially on the C300, and we've even sometimes drafted in a RED EPIC Dragon for slow-motion or title shoots.

Hill walking plays a big part in the programmes and can present quite a challenge kit-wise, with weight versus speed always a consideration. Requirements can change frequently, even hill by hill, especially when the weather is wild or changeable. Again, the 2/3" cameras often present a good solution, being not too heavy, quick to work with and offering a large zoom range, therefore cutting down the need to change lenses in the rain.

The Canon C300 can be good for this sort of work too, but the kit can start to get heavy if you use a Zacuto Graticle and, say, Canon CN-E 15.5–47 and 30–105 lenses. You still need the longer lenses as well, so the weight starts to mount up. For big walks, we tend to take EF stills lenses as they are much lighter, but the downside of this is that they need constantly to be swapped on and off camera. Also, a rain deflector may be needed, plus matte box and filters – so then the kit starts to get very heavy and bulky. I love working with long lenses and they are great for Scotland's landscapes, with the Canon EF 500mm f4/L II ideal in some locations.

One particularly good thing about the little C300 is that the wind has less of a battering effect. My favourite tripod is the Ronford heavy legs with 2015 head, which is great when the wind is high or gusting, but this is not a viable option when hiking up a hill, or to somewhere inaccessible, so the carbon fibre Sachtler Video 20 becomes the go-to mount for the vast majority of the shoot.

Working indoors

For interiors, I try to use the C300 with Canon cine primes or the fantastic 15.5–47 and 30–105 zooms, which give a great look. For lighting, HMI and 24v tungsten Dedo kits are first class for controlled light and, along with a few Kino Flos and Fellini/TecPro panels, I can cover most situations. All the





interviews are shot three times: non-sync wide, interviewee and Paul's reverses. We have found this to be much better than trying to rush the process. It allows people to settle into the conversation and they often relax a little on the second run-through and say things a bit differently. It's also great for me as I can light each person properly and don't have to compromise the shots to accommodate the second camera. It actually doesn't take that much longer and you get so much more out of the interview. It makes editor Bill Gill a happy chap too!

Incorporating drones

Drones have brought a real boost to the production values. I remember the first year we took one with us; I think it only flew once in six weeks because it was constantly windy and wet, and the drone was an early underpowered model. But in the last few years, the new generation of DJI Inspire drones has been a real game-changer. I use both the Inspire Pro and the new Inspire 2. These are light enough to carry to most locations and the battery life on the Inspire 2 with X5 camera has made life much easier setting up and rehearsing moves. Occasionally the Phantom 4, which is a very capable little

Sunset on Creise summit overlooking Rannoch Moor

Kit list

Panasonic HPX3100 camera Canon HJ11 x 4.7 and HJ22 x 7.6 lenses Canon C300 camera Canon Cine primes: 14, 21, 35, 50, 85, 135mm Canon CN zooms 15.5-47 and 30-105 Various Canon EF zooms inc. 300mm 105 macro etc. Satchler Video 20 carbon tripod / Baby legs / Hi Hat Ronford 2015 head and heavy legs Litepanel and Fellini LCD lights Dedo kits: HMI and tungsten Sonv a7s mkll camera Underwater housing for a7s mkll GoPros Inspire 2 drone PAGlink batteries Camtram dolly

Grand Tours of the Scottish Isles



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Home-made midge suit

drone for the money, is carried up a hill for a few shots and the new Proversion is even better. I've done a great deal of aerial work in the past and, before the advent of drones, I often envisaged and longed to do shots looking down on various landscapes, but the budget or time wouldn't allow.

This programme has taken us all over the Western Isles, as well as to the Shetland Isles, Orkney, Fair Isle and Foula. We waited ages to get out to North Rona (way out in the Atlantic, north of the Western Isles) for one of the more memorable shoots. This took literally years to achieve as every time Paul tried to set it up it was called off due to poor weather. Finally, in 2016, we managed it. During the very rough crossing, Paul and I witnessed our first literally green seasick passengers - people actually do go green in these circumstances, poor things!

What a very wild location – we had to offload against a rock wall, unload the gear and then hare across to our filming location at the other end of the island to quickly film everything required before the boat headed back home. It was all a bit frantic but we were blessed with glorious sunshine while we were on the little island, which is so isolated it actually feels a bit like being on a ship way out to sea.

Natural predators

These shoots are not without their fauna-borne challenges as well. Ticks have become quite a problem, especially in the last couple of years due to the warming climate. A few warm, wet winters in succession have meant these little parasites have grown in number and I caught Lyme disease after being bitten by a number of ticks while working in Sutherland. It wasn't until a few weeks later I noticed a big red bullseye mark on my leg while on holiday in Spain. The local doctor had never seen this condition before, so I was asked to go for a coffee while he got a group of his medical students together to allow them to take a look. Fortunately it had been caught early enough to escape the more serious possible effects. And anyone who's had the pleasure of filming in Scotland during

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Anyone who's had the pleasure of filming in Scotland during the summer months will be only too aware of the annovance midges can present!



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It's not just attacks on people that present a challenge either. Filming off the coast of Shetland with the drone, within minutes of it becoming airborne, the little aircraft was mobbed by Arctic skuas (known by many as Bonxies) - notoriously aggressive birds. This was something I hadn't anticipated at all and meant a scary few moments. Fortunately they were just curious, so the drone survived to fly another day but It's probably only a matter of time before a bird decides to take it down!

Challenges aside, this show covers everything from gorgeous spectacular landscapes, fascinating interviews, boats, aircraft and drones, hill walking and caving, to factories, vehicles and travel. It's a fabulous mix and great fun - I love it!



Fact File

See more about Timeline at: www.timelinefilms.co.uk and about the shoot at: www.bbc.co.uk/programmes/ articles/3tYbk4GYmKYlspyDF1c44cj/5-things-everydrone-pilot-on-scotland-s-islands-needs-to-thinkabout-before-take-off

See more about GTC member Richard Cook's work at: www.cameramanscotland.com

Contact Richard: 07787 518662

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66 I recently got the opportunity to test the new LEE ProGlass Cine IRND's. I was extremely impressed by the true stop value every ND gave me throughout the whole range right up to ND2.1. I didn't notice any colour shift when changing or combining the filters. They were neutral all the way up to the ND2.1, something I was often struggling with when using other brands. A fantastic set of filters which will become part of my kit for any future project.

Martin Fuhrer, BSC

