

# Mendip Caving Group

# NEWS

NUMBER 245

APRIL 1995

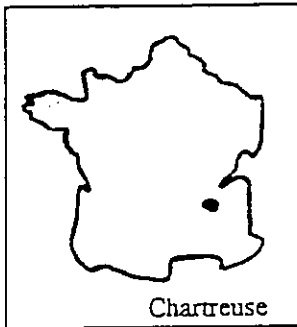


## Chartreuse 1995

August 18 - September 3

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Back in December, discussions got underway for the 1995 summer trip to the Chartreuse Massif, France. The December newsletter gave us a taste of what is in store and I hope that it gave food for thought as it has come to that time of year when we need to finalise numbers and begin to collect deposits.



The Chartreuse Massif lies north of Grenoble (and the Vercors) in the foothills of the French Alps. The main aim of the trip is to have a bash at the Réseau Dent de Crolles - the 24th longest cave system in the world at 55km long. The system has seven entrances so there is no excuse for boredom! If however you do fancy a change, there are over 600 entrances in the Massif to choose from! Of course it would be satisfying to do some of the traditional through trips such as the Trou du Glaz-Guirs Mort traverse but there is something for everyone - I think that this trip will be very much what you care to make of it. With the large numbers of you who have expressed an interest in coming, it appears that there will be some caving going on practically every day and for those feeling less energetic there is shopping (of the caving gear variety) available in Grenoble, fantastic scenery and of course, plenty of walking (alias sherpering) opportunities for all.

During the weekend of the AGM, some basic logistical details were discussed and I have since provisionally booked a minibus and contacted a campsite owner, provisionally booking spaces for 18 or so people. In order to start finalising these arrangements and booking a ferry crossing, I need to know exactly who is coming and to start collecting deposits so that I can make a downpayment on the bus.

The overall cost of the trip will be in the region of £200 which should include transport (bus and ferry), BCRA insurance and campsite fees. MCG expedition tackle will be taken on the trip. Extras include food/beer/wine/spending money.

So, if you are interested in coming, then please send your £50 non-refundable deposit to me at Flat 5, 2 The Crescent, Barnes, London, SW13 0NN, by 30 April. Please make cheques payable to "Julie Hesketh" - I have set up a separate account under my name.

Any questions about the trip? Then give me a ring on 0181 876 1863 after 7pm on weekdays or try the cottage at weekends.

Julie

## NORDRACH COTTAGE BOOKINGS

NIGHTS	GROUP	SIZE	NIGHTS	GROUP	SIZE
05 May-06 May	MEMBERS' WEEKEND				
19 May-20 May	KINGSTON UNIVERSITY	(16)			
02 Jun-03 Jun	MEMBERS' WEEKEND				
07 Jul-08 Jul	MEMBERS' WEEKEND				

### 1995 MEETS PROGRAMME

DATE	AREA	EVENT	CONTACT	TELEPHONE
29 Apr	Mendip	Compton Martin Ochre Mine	CSCC, meet at cave	
20 May	Forest of Dean	Slaughter Stream Cave	Geoff Beale	01734-722510
27 May-29 May	Yorkshire	Gaping Gill Winch Meet	Geoff Beale	01734-722510
18 Aug-03 Sep	France - Alps	Chartreuse	Julie Hesketh	0181-876-1863

### MCG - CAVE LEADERS

<u>DAN-YR-OGOF</u>		<u>OGOF FFYNNON DDU I</u>
Geoff Beale	01734-722510	Geoff Barton
John Beauchamp	01761-463143	Geoff Beale
Ian McKechnie	01932-228292	John Miriam
John Miriam	0181-393-3955	ST. CUTHBERT'S
Roger Wallington	01753-433841	John Beauchamp
<u>CHARTERHOUSE CAVE</u>		Malcolm Cotter
Charlie Allison	0181-393-5910	<u>RESERVOIR HOLE</u>
Nick Gilson	01934-417697	Geoff Beale

Accommodation in Yorks & Sth. Wales can be booked through the relevant cottage wardens:

Yorkshire	Northern Pennine Club	Andy Goddard	01244-570944
South Wales	South Wales Caving Club	Gary Vaughan	01202-679602

<b>WEEKLY MEETINGS:</b>	At the Group's Mendip headquarters on Wednesdays at 7.00pm. & at the Eclipse Inn, Egham, Surrey, on Thursdays from 9.00pm.
<b>CAVING ACCOMMODATION:</b>	For up to 30 people, is available at the MCG headquarters:- Nordrach Cottage, Charterhouse, Blagdon, Bristol, BS18 6XW Tel: 01761-462797 Grid Ref ST51475606 OS 1:50,000 sheet 182
<b>COTTAGE INFORMATION:</b>	Through the cottage warden please (address and tel. no. below)
<b>COTTAGE BOOKINGS:</b>	MCG members, member's children, SWCC and NPC
<b>COTTAGE FEES per night:</b>	Guest clubs and member's guests
<b>PREPAYMENT VOUCHERS:</b>	(available to members only) 12 nights accommodation £15.00 25 nights accommodation £30.00
<b>ANNUAL SUBSCRIPTION:</b>	Full & Probationary Members: £25.00; Associate Members: £12.50 The subscription includes free day-time access to the cottage by the member, their children, and their accompanied guests



<b>SECRETARY</b> JOAN GODDARD	tel: 01608-810382
10 ENSTONE ROAD, CHARLBURY, OXFORD, OX7 3QR	
<b>TREASURER</b> MARTIN ROWE	tel: 01252-872006
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<b>MEET SECRETARY</b> GEOFF BEALE	tel: 01734-722510
30 CHURCHILL CRESCENT, SONNING COMMON, NEAR READING, RG4 9RX	
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4a HAZELTREE ROAD, NORTH WATFORD, HERTFORDSHIRE	
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3 KEWARD, GLASTONBURY ROAD, WELLS, SOMERSET, BA5 1TR	
<b>ORDINARY MEMBER</b> BILL HEADINGTON (not on phone)	
32 COMBEND, RADSTOCK, BATH, AVON BA3 3AN	

* CUSTODIAN TRUSTEES *	NON-COMMITTEE POSTS	NAME	TELEPHONE
* JONATHAN ROBERTS *	RESCUE WARDEN	JOHN CROWSLEY	01179-652585
* MALCOLM COTTER *	CONSERVATION OFFICER	GORDON WOODALL	01278-421802
* PAT WALSH *	COTTAGE EXTENSION	WAYNE HISCOX	01749-672081x2213
* PETER MATHEWS *	MCG SHOP	SEE ANY COMMITTEE MEMBER	

THE MCG IS A REGISTERED CHARITY No 270088; THE EXAMINERS ARE BRYAN TERRY AND HUW JONES

**ON THE MOVE** Roy Kempston to 29 Windsor Way, Frimley, Camberley, Surrey, GU16 5YZ Tel: 01252-838760

**CONGRATULATIONS** to Marcus Ward and Zoe Hammersley, on their engagement.

**CONGRATULATIONS** to Tim Haynes on becoming a full member.

**WELCOME** to Paul Newey and Alan Wright, accepted as probationary members.

**EARWIG** in on the committee meeting held 3.03.95... Cottage extension! Detailed drawings now complete and were available for inspection at the AGM... GB access! 11 clubs signed documents for formation of the company and everyone was happy with it. The company is made up of one representative from each club. Next meeting 8th April for company representatives to sign documents for the lease giving access to GB and Charterhouse caves... MRO emergency radio! It is awaiting collection. It is to be kept in a local house rather than at the cottage for safety, for on the spot response (cottage is often empty for days or has guest groups) and because of past abuse (not MCG!). Committee to ask John Beauchamp or Arthur Spain... SRT training weekend! It is hoped to be organised for the June members weekend (any offers of help?). Details to follow... Contents insurance! After doing an assets list for the Charity Commissioners (and valuation for our own interest) we found that general contents were adequately covered, but tackle was under-insured and library contents were not covered at all. This is to be rectified ASAP... Missing tackle! The tackle master reported that three of the missing pulleys suddenly reappeared back in the tacklestore and he thanks the member who returned them.

**OLD STYLE GB PERMITS** expire(d) on 28th April. New 1 year permits are enclosed with this newsletter. New 14 day permits are available in the Library.

**FOREST OF DEAN** Geoff Beale has organised a trip for Slaughter Stream Cave (the one with the dead dog!) on Saturday 20th May. Party size is limited so first come first served. Phone Geoff on 01734-722510 to secure a place on this trip into a superb cave.

**RECENT VIDEO** acquisitions: WOOKEY HOLE: THE BOTTOM OF BRITAIN 52 minutes of Rob Parker's diving record in Wookey Hole. Produced by Harlech TV.

**THE LOST CAVES OF BRITAIN** Filmed by Sid Perou, commentary by David Attenborough, produced by NCA with all proceeds from sales being used to further cave conservation via the United Kingdom Cave Conservation Emergency Fund. Caves "visited" range from Wookey Hole to Fairy Cave Quarry caves, Pennine caves and South Wales. Pressure on caves comes from overuse by cavers (7,000 registered club cavers as well as independent individuals), carelessness, economic demands of a consumer society (motorways, quarrying), the growing trade in

geological specimens, dumping of rubbish and dead animals etc. The scientific importance of caves is stressed, with archaeology, biology, hydrology, water supply and geomorphology all being mentioned. With such a wide ranging subject, coverage of any one topic is scanty, but nevertheless the video is worth watching. It would be particularly useful for members who are involved with scout or youth groups to show in conjunction with a caving weekend.

Any member wishing to borrow club videos should contact Joan. A £15.00 returnable deposit will be required. Other available videos were listed in Bulletin No.18 (Oct 94).

**ADDITIONS TO LIBRARY** NORTHERN CAVES, VOLUME 3, The Three Counties System and the North West. This recently published volume is now in the library, where it joins Volumes 1 and 2 ("Wharfedale and the North East" and "The Three Peaks").

**CAVERS FAIR** To be held on Jun 24/25th at Penwyllt, South Wales. Organiser is Brian Jopling, 31 Holbeche Road, Sutton Coldfield, West Midlands, B75 7LL Tel: 0121-378-1936.

**NAMHO '95** To be held on Jul 14-17th 1995 at Lilleshall National Sports Centre, Newport, Shropshire and hosted by Shropshire Caving and Mining Club. There will be lots to choose from - talks, seminars, trade stands, surface field trips, underground field trips and a social event on the Saturday evening. The centre has full catering facilities plus reasonably priced single and twin rooms on site. There will also be camping on site for tents and caravans. The bar will be open Friday and Saturday evenings and Saturday and Sunday lunchtimes. The cafeteria will open during the weekend for meals at breakfast, lunch and dinner if ordered in advance. Apply by sending an A4 SAE to Adrian Pearce, 72 Hopkins Heath, Shawbirch, Telford, Shropshire, TF5 0L2 or telephone 01952-405362.

**LOST** John lost a steel karibiner on the rescue weekend - it has probably got muddled in amongst someone else's gear, not surprising when you think how much rope and metalwork went down the cave.

**BARN DANCE '95** Arthurs last job as Ordinary Member is to book Chewton Mendip Village Hall for our Barn Dance on 4th November 1995. We would like to introduce a "certain something" into the Barn Dance event to make it more inviting for all, maybe some games or feats of skill for all to try. If you can think of anything (clean-ish!) that's likely to appeal to the majority then let the new Ordinary Member Bill Headington know.

**WORK WEEKEND** coming up soon! There is an awful lot of work to do, so please turn up to help over the Bank Holiday, 6/7/8th May. Remember, it is a condition of membership that you show an interest in cottage work, and that if we could build the cottage with a membership of only 70 then we should be able to maintain it when we have 141 members!

## Underground in Mallorca

Timothy Francis

It's wet and cold on Mendip so it must be that Mallorcan time of year again! This years schedule was dictated by a court summons to appear as a witness in Manacor on the 21st February. Last year we had caught two car thieves red-handed, so this year we did our bit for justice. Whilst the rest of us hung around the courts Joe went for a ramble on the scrubby hills between Ca'n Fresquet and Manacor.

### Cova Sa Campana

This year we finally got to do Campana, the deepest cave on the island. As is usual for Mallorcan caves Campana is easy to find once you know where it is. Descriptions of how to find the cave are commonplace but the cave entrance is accurately marked on the new version of a 1:25 000 map (Sa Calobra 643-IV). We picked up a copy in the bookshop in Soller.

Apart from the final 60m pitch (which we did not bother with) the cave is relatively straight forward. Once inside the entrance we noticed that the temperature was not as hot as most other caves on Mallorca which makes a pleasant change. The first pitch consists of a steep free-climb which is best assisted by a 20m handline belayed to a large stal boss. This lands in a large, dry chamber. The formations at this point are already quite impressive but are nothing compared to those beyond. From the entrance chamber the way on is downslope and to the right, and enters the huge Sal des Gegants. We wandered around this chamber for a good twenty minutes or so, taking in the sights. The cave continues to the left down a narrow gully, pitch two. This is broken up into two sections: 15m and 20m, although we used a single 45m rope which was ample. The first section has plenty of solid naturals and one 8mm spit. A sloping gully leads to the head of the second section. We rigged from a large stal on the left and then abseiled diagonally across the pitch to land on a hidden ledge. From here it is an easy climb down the huge slope, and avoids the use of a massive rope.

At the bottom things close down a bit at a boulder choke. Look out for the plastic nativity scene on the left! At the choke we rigged a small pitch with a deviation ( 3 spits) but have since read of a bypass to the left. At this point the passage narrows enough for the unusual draught pattern to be felt. The chamber contains some excellent formations including some fine helictites. Wandering through these galleries we arrived at the next 'pitch'. Joe volunteered his chest harness, tied to a stal blob, as a handline for this one as we had no more gear left. This protects a slippery start to a relatively easy free-climb once you're past the first two metres. Another huge chamber follows with a fine stal boss and gour pool. This point is the site for a digging camp but is remarkably clear of cavers litter. We called it a day at this point but noted the start of the final pitch. I'd recommend a spot of bolting here as belays seemed a little hard to come by.

### Cova des Diners

We chose this cave more for its proximity to the villa than for its popularity. Take the road from Puerto Cristo which heads towards Son Carrio. Turn right at the signposted crossroads and

drive up to the shoulder of the hill. Turn left at a large green house and continue up the hill until a sharp right hand bend is reached. Park here. Walk up the road for 15m where a small footpath leaves on the left (by a small gap in the low wall). Two entrances, one with a dry stone wall, will quickly be found.

The description we had of this cave was a complete load of rubbish; so bad in fact that I doubt whether the author has ever even visited the cave. Both entrances join up close to the surface and several ways lead on down. The locals have marked the through trip with lengths of twine, for all the ways down eventually unite. Much of the cave is covered in a fine black silt which gives the place a rather gloomy feel. The entrance complex of passages ends at the head of a steep rift ( a 5m handline belayed to stal is useful in places), but there is no way at the bottom. The main way on is best found by entering the cave downslope of the unwallled entrance and keeping left. Crawl past a couple of gour pools to enter an impressive chamber. This is well decorated especially with large columns. The way on ends abruptly at a steep rift, and a boulder choke in the floor. The rift would appear to be a continuation of that seen in the entrance series. We nosed around the chokes but could find no further way on.

### Cova de les Rodes

This is another interesting cave that has been much underestimated by previous visitors. We found it to be an excellent trip which only takes a few hours. Take the C710 from Puerto Pollensa and turn right to Cala San Vincente. Park at the car park above the beach rather than in the woods which are a bit thief-friendly. Walk back up the road past a villa with an impressive garden. Take the first track on the right, following it around a left hand bend to a gate. Do not walk through the gate but keep left, crossing over a line of earth barriers erected to prevent vehicle access. Continue down the track keeping the area of fly tipping to your right. The cave is located in a shakehole at the far end of the tip, forty feet from the track on the right side.

The entrance passage ways have a fine, sculptured roof and have not suffered too badly from graffiti. The first pitch is soon reached. This is free-climbable but I would recommend 15m rope rigged to two large naturals as an alternative. Below the nature of the passage changes with some good walking sized stuff over rocks. This ends in a sump, but a bypass can be found by climbing up the mud bank to the left and squeezing through an eyehole. A short section of crawling leads to the second pitch. This can also be freeclimbed but a 6m rope is also easily rigged from several naturals. Below a low crawl follows to where an active streamway is met. The way on, however, is to the right past some slippery muddy climbs and crawls which lead to the final pitch. A 30m rope is required rigged to large naturals with a bolt rebelay half way down. The pitch is free-climbable to this point but considering the state of the bolts at the rebelay ledge I would back it up well. At the bottom swing across to the left to avoid landing in the sump pool which has some fine floating calcite. A further high level passage can be found by climbing upslope. This leads to a pleasant section of passage with gour pools and a terminal sump.

## The Tequila Expedition 1995 - Quest for the Golden Giraffe.

*by Pete Hollings*

For two weeks during March/April '95 I joined an expedition to Tequila, Veracruz, led by Peter Sprouse and Pat Kambesis. In total some 25 cavers from North America and 6 from Mexico were involved in the trip at one time or another. For me the trip began in Austin, Texas, where I joined Peter Sprouse in order to travel down through Mexico in his 1954 4WD Power Wagon school bus. There were six of us in the bus including Bernhard Koppen who'd travelled from Germany (and whose airfare was considerably less than mine from Saskatoon !!). Now while the bus is without doubt a great expedition vehicle, its age means that it is prone to mechanical problems. By the end of the trip we'd replaced a battery, the alternator, one of the main leaf springs on the front suspension and finished the trip on front wheel drive after the rear end went !!

We arrived at our base camp on the Monday setting up our tents in the 'Penthouse suite' of our multi level campsite, with 'Doggy Heaven' and the 'Swamp' below us. Within minutes we were surrounded by kids and cringe dogs from the village of Tlaquilpa (we were later to become a stopping point for tours from the local school), they were all very curious but we soon learnt that the kids would flee at the site of a camera, the dogs however proved more difficult to get rid of. Much of the initial groundwork had been done by the Mexican cavers of the SpeleoVer group and as a result we already had the permission of the local Presidente to explore for caves in the area. In fact some of the early arrivals had even explored a number of blind pits and even a going cave.

The following day we split in to small groups and began investigating pits located by the Mexican cavers. Despite being camped at over 2500m we soon found that all the caves were uphill, and up very steep hills at that. Our first attempt to locate a cave was thwarted by a landowner who knew nothing about permission from the Presidente and turned us back. Ivan, our Mexican liason, led us around by a circuitous, and to us very strenuous route and we were soon rigging the entrance drop. At this point another group came down the hill somewhat irate as they had just paid 20 pesos for lifetime rights to the pit, which we later named Sotano de Pago Pago (Paid and Paid Pit), they left in good humour for another pit only to find that they had been beaten to that one as well !! While I dropped the entrance pit and set about placing a bolt for the second drop, the rest of the group chatted with the landowner. Having already received some money he then went on to ask for a watch as a souvenir and when this was refused, for a car ! I came out and Mike and Andrea Futrell, my regular caving partners throughout the trip, surveyed the blind pit to -70m. Back at camp the other groups had not found much, except Charlie Savass's team which had returned to the going lead of the day before. This had become known as

Scary Man Cave as Charlie's willingness to free climb pitches that mere mortals would have used ropes on had somewhat unnerved his Mexican companions. Unfortunately the cave bottomed out at -200m.

The next day we headed back up the hill to investigate more leads located by the SpeleoVer cavers. These turned out to be fairly small, the deepest pit being only 40m. However we were later to learn that one of the local kids who'd been watching us so curiously, reported that we had removed a golden giraffe from one of the caves (well a Jumar does kind of look like a giraffe if you squint a bit !). Back at camp things were starting to get unpleasant as a local drunk had begun to hassle people. We also found out that we were in the middle of a feud between the farmers in the hills and the townspeople. The only good news was that one group had discovered a 100m deep pit that was still going.

On Thursday we took a truck out to the area of the 100m deep pit and while exploration continued there we investigated the surrounding hills. We were shown a small draughting entrance above a large choked, but draughting sink, unfortunately it didn't go. We named it Cueva de Craneo de Cabra after the goats skull found inside the entrance, the horned skull may also explain why the locals kept asking us if we had seen the Devil in the cave. We walked back to camp that night to find a note from Peter Sprouse saying that our permission to cave in the area had been withdrawn and we were leaving. He'd been given the OK to remove the ropes from Scary Man and had gone to do so. As people came back that night we sent a couple of people up to act as rope guards but they came down at dusk reporting that all was quiet. Meanwhile another group who'd gone further afield had had a long hike back when their truck was stranded behind a Mexican one with a broken axle, they'd left the driver to wait things out. The 100m deep pit, found the day before, had bottomed out at 150m, but interestingly had contained human bones and numerous candles that had apparently been thrown down as offerings. By dawn the derig party had not returned so two people went up to the entrance only to find them stranded at the bottom of the entrance pit, some aggrieved locals having untied the rope and dropped it down !! The trapped cavers were cold, tired and very pissed off and went as far as filing attempted murder charges with the local police, not that anything ever came of this. The final conclusion was that some local sub-jefe had acted independantly in order to humiliate the gringos and impress his constituents.

By noon we'd packed up and left town, leaving behind perhaps the best lead of the expedition, a draughting cave with walking sized passage that was left by the exploration team of Charlie Savvas and Susie Lasko at the first of a series of plunge pools. We relocated in the town of Atlahuilco, 500m lower, and wiled away the afternoon drowning our sorrows in 20 cent beer. Unfortunately the area we were now in had been

briefly examine by some Belgian cavers a few years earlier and it was their discoveries we were shown on our first day in the field. We did find 100m of low crawl further up the valley but that wasn't what we'd come to Mexico for. The other groups found a number of small pits and short caves in the surrounding hills with one team bottoming a 170m deep sotano.

On Sunday my group of regular cavers, along with Doug Strait and Ron Simmons, headed off to the small village of Zacamilola. The first cave we were shown turned out to be a 20m pit that we named Chivalry Pit. Now the male cavers state that this is because we gave Andrea the honour of the first descent, she tells it differently (something about male laziness !). We then checked another pit that turned out to be an 18m blind shaft, however Andrea noted a small draughting hole in the surrounding sinkhole. A brief spell of digging ( I knew my Mendip training would come in useful one day ! ) opened the way for Mike, one of our smaller cavers, to descend to the first pitch. By the time we left two pitches had been descended to a squeeze that would require some hammering. The next day we returned and while the larger cavers, examined some neighbouring, but very small, leads, the small team continued exploration and began the survey. Beyond the squeeze was another drop with yet another squeeze below, however the draught was still strong and things looked promising.

Back at camp no one else had managed to find anything of note, a shallow sotano with a 500ft circumference being one of the more significant finds. As a result it was decided to call it quits and check out some previously explored river sinks nearby, however we agreed to give the small team one more chance at their lead. Unfortunately another squeeze was found that didn't yield to hammering but probably would surrender to some chemical persuasion.

Consequently we were on the road Tuesday evening heading for El Bocarron, a massive river sink. I remember little of the next two days having been struck down with a very bad case of Montezuma's Revenge ! However from what I heard the sink with it's 170m abseil off a natural bridge to reach the entrance, was spectacular. Even the dead rats seen floating upstream couldn't dampen peoples enthusiasm. The area had been used as the base camp for the British Black Holes expedition and consequently we were watched at all times by locals to ensure we didn't steal any golden frogs, as they believed the British had done. Just as well really as the bus would have started to resemble a zoo what with all the giraffes already on board !

By the end of the expedition over 50 caves had been mapped, the deepest some 200m. Of these two were still going when we left. The area has considerable potential particularly the higher areas although these are likely to be the areas where access will be most difficult.

### « *Absent Without Leave* »

If anyone knows the whereabouts of either of the following can you please call me on 0181-224-7591 (24hr ansaphone):

A pair of slightly faded size 9 pale blue wetsocks with red trim and small holes in the toes.

Black Casio waterproof analogue/ digital watch with green/ orange patterned fabric 'animal' velcro strap. The watch face has protective metal bars across the front.

Charlie Allison





# Japanese Tourist Syndrome

by Charlie Allison

There was an outbreak of Japanese Tourist Syndrome within the MCG stemming from the entertaining foray to Samoëns last year. There was even talk of permanently fixing a pull-down projector screen in the lounge at the last work weekend. I have drafted a few suggestions to help the affliction, based on observations and experience of a few useful techniques and theories: I've even thrown in a couple of references for good measure (the ones with lots of pictures in!). I won't be covering cave photography *per se* (this is, after all the MCG!!) - although the concepts are quite transferable, or how to build a flash gun powerful enough to fuse the National Grid - there's enough excellent material on this already.

Instead of the usual detailed description of the multitude of equipment available, I shall instead be covering some of the more useful principles behind the pictures - suffice to say that your pictures will only as good as the quality of the weakest link in your system - be it body, lens, film, technique, processing lab or whatever. Take care of the minutiae and the rest will take care of itself. Although this article is biased towards the SLR user, the compact user can still apply the principles, eg by holding a filter over the lens - although the lack of user over-ride is limiting in some circumstances. On the other hand, they are more useful than an SLR in some situations. Sorry if the following maths & physics seems a little technical at first sight, it isn't really - at the end of the day there are only *two* main controls on a camera: the size of the hole that lets light through and how long it's open for. The trick is getting the balance between the two right for the desired outcome.

**Film:** There is no such thing as the perfect film. Each emulsion has its own colour balance, grain, and other individual quirks. People also *see* colours in different ways and will have a leaning to the rendition of one film or another. Arguing over the best film is akin to arguing whether a rack is better than a Petzl Stop; or whether Bottom is just a re-hash of the Young Ones. However, you do get what you pay for: cheap film is nearly always false economy. Try a few out and become acquainted with their idiosyncrasies then stick with the ones you like. Here are a few types that I personally rather like (the list is not meant to be exhaustive or exclusive):

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**Slide:** Fuji Velvia (rate it at 40 to give gob-smacking colours - but beware of portraits in bright sun: the subject *can* take on more than a passing resemblance to a lobster!), Kodachrome 64 & 200 (rated at 250) - excellent for portraits and bright conditions, but a bit subdued in low light; Kodak Elite 100 & 400 (good underground).

**Print:** Fuji Super G 100, 200, & 400 - superb colours and very fine grain, Kodak Ektar 1000.

**B&W:** I haven't used a huge amount of this but Kodak T-Max 3200 is quite interesting and Agfa's DD12 slide film was capable of producing remarkable detail but it has now been delisted and I haven't as yet tried its successor.

o o

Before proceeding I think it will be useful to define a couple of terms. Firstly, we should start with the size of the hole (aperture) that lets light through. It is measured in *f-stops* and increasing or decreasing the aperture by one stop doubles or halves the size of the hole that lets light through. *f*-numbers are represented by a numerical sequence: 1, 1.4, 2, 2.8, 4, 5.6, 8, 11, 16, 22, 32. The next *f*-stop is calculated by multiplying the previous one by  $\sqrt{2}$ . Changing a stop may also be achieved by altering the shutter speed,

eg switching from 1/125s to 1/60s is an increase of one stop. All film has a certain amount of *latitude* to over or under exposure. Put simply, it is the degree of how tolerant a film is to exposure errors before the pictures start to look awful. Print film has a much greater latitude than slide film - a feature exploited by the manufacturers of some of the more expensively-challenged compact cameras. Film speed is measured by the ISO scale: less than 100 is considered slow, over 400 fast, and over 1000 is ultra fast. The speed is the measurement of the relative sensitivity to light of the emulsion, eg 200 film is twice as sensitive than 100 film, and therefore needs half the exposure.

**Colour of Light:** We first need to consider the nature of light and its effect on film. The primary measure is the colour temperature of light. This is based on the Absolute temperature scale, measured in °Kelvin (°K), of the energy required to generate an equivalent mix of wavelengths of light from a theoretical Black Body. The application of this is a very useful concept to be aware of. The colour temperature of the light is very influential on the appearance of your images. The higher the °K the bluer the light (cooler colours), and conversely the lower the °K the redder the light (warmer colours). Film is designed to give accurate colour rendition at a *specific* colour temperature. For example *daylight* film is designed to be used in «average» daylight, which is considered to be approximately 5600°K. In more practical terms: approximate to daylight 4hrs after sunrise or 4hrs before sunset. Different light sources have different colour temperatures; eg a candle flame is about 1200-1500°K, a 100W lightbulb 2900°K, hazy sky 8000°K, and clear blue sky can reach 10000-15000°K. The further away you move from the °K the film was designed for the greater the resultant colour cast. This phenomenon can be used to great effect to enhance your pictures - there are relatively few excellent photos taken in harsh midday light, but many in the early morning warm light, or that of an evening. You may also have the advantage of the sun at a lower angle, bringing out the textures of the subject.

Other types of light source and environmental conditions will further affect the quality of the light reaching the film. In order to best illustrate this, visualise if you can the MCG lounge of an evening (excluding the usual collection of drunk people), or on a typical dull overcast Mendip day. Looks a bit drab doesn't it? Why? The low-energy bulbs actually give off a *pale green* light. (The human eye is more able to compensate for this than the film is). A picture taken with the bulbs as the main light source will come out with a hefty green cast. This situation is further exacerbated by the green light reflecting off the walls: the paint will absorb certain frequencies of light, altering both its spectral quality and the colour temperature. This reflected light mixes with the incident light from the bulbs, enhancing the colour cast. It can be compensated for by either using flash, or coloured filters. Although it's not been tested, I suspect that a fairly hefty dose of magenta, possibly with a garnish of blue or yellow would help in this instance. These principles can be extended to outside locations: a combination of the incident light and that reflected off other surfaces, eg buildings, water, etc. can be used to great effect.

**Filters:** Often dismissed as trendy gimmicks, filters are essential for good photos. OK, some effects filters can produce some amazingly naff looking shots, the art is to make a filtered shot look as «natural» as possible. In practise there are 4 main types to

consider for your travels: Skylight, Colour Temperature Correction, Polarizing, and Graduate. There are two styles in common use; round ones that screw direct on the front of the lens eg Hoya, and square ones that fit in a holder attached to the front of the lens, eg Hitech, Cokin. Both styles are fine, it all boils down to personal preference; but once again you get what you pay for. Cheap filters can soften the images and introduce all manner of aberrations and colour casts!

**Skylight:** Each lens should have its own 1A or 1B skylight filter. This serves two purposes, firstly to protect the lens from damage; and secondly they reduce the effects of UV light (bluish cast on film) and thereby aid the penetration of haze for clearer shots. False economy not to have them.

**Colour Temperature Correction** filters alter the °K of the light reaching the film. There are the amber 81 and 85 series filters that lower the °K, and the blue 82 and 80 that raise it. The most frequently used are the 81A and 81B «warm-up» filters that lower the °K by 200° and 300° respectively, and the 80A filter that converts the colour temperature from 3200°K to 5500°K. The former enhances pictures taken in overcast conditions, and combats the blueness of bright light; the latter provides accurate colour rendition in tungsten lighting. There are several filters in each series, each of a different strength.

**Polarizers** are extremely useful. There are two types: linear and circular. They both have exactly the same effect and differ only in the method of construction: autofocus cameras and those with spot metering will need the circular type. They work by letting light through that has been polarized into one plane, the plane is determined by rotating the filter on the lens. To go into details would fill an entire newsletter, but basically they can reduce the glare of reflected light, reduce haze, and thereby intensify the apparent saturation of colours. They do not, however, have any effect on light bouncing off metallic surfaces. The degree of polarization depends on the angle formed between the lens, subject and sun - make your thumb and fore finger into a 'L' shape. Point your finger at the sun. The arc inscribed by your thumb from horizon to horizon is the plane of greatest polarization of light. The only real way to establish the best effect is to put it on the lens and rotate it to see if it makes a difference. One problem is their use on wide/ ultra-wide angle lenses - they cannot polarize all of light within the angle of view of the lens, so you have to be careful with your composition in order to avoid light and dark patches of sky.

Neutral density **graduates** are quite handy - they reduce the intensity of light over about half the filter, without any great effect on its spectral quality. Their main use is to prevent a brighter part of the scene, eg sky, from over exposure, and hence appearing washed out and rather dull. They therefore help retain the detail. Film cannot cope with as many differences in brightness as the eye can, and so things too far out of its latitude will come up either very dark or very bright, so the film needs a bit of help to even out the overall exposure. The strength of these filters is measured in stops. Coloured grads are also available, and provide extra impact in some circumstances.

Other types of filters have their place, eg diffuser, multi images, etc. and *can* lead to very effective pictures. Meehan's book (see references) gives excellent coverage on all types of filtration.

**Reciprocity Law Failure:** Reciprocity Law is easier to work out than to say, and is normally nothing to worry about! Basically it uses the following formula:

$$\text{Exposure} = \text{Illumination} \times \text{Time}$$

$$(\text{EV} = \text{I} \times \text{T})$$

It says that several different settings can be made on the camera to give the same EV, eg 1/125s @ f5.6 gives the same EV as 1/60 @

f8. This fine as long as the exposure *time* is within the design limits of the film - typically 1-1/10000s. Outside these limits the law begins to fail, and this is what we are primarily concerned about: the film effectively receives *less* exposure than the formula suggests and therefore an increase in the exposure is needed to compensate. This is why long exposure shots can come out quite under-exposed (dark) if no such correction is applied. Unfortunately there is no hard and fast rule concerning the amount of compensation required: some experimentation is needed! This is achieved by bracketing the exposure: that is taking one photo at the meter suggested EV, and taking subsequent ones with varying amounts of exposure increase. I find that for Velvia rated at 40 a 2/3 stop increase (ie an effective rating of 25), and for Elite 400 an increase of between 1/3 and 1 stop (the longer the exposure time the greater the compensation needed) produces good results. Manufacturers' data for compensation needed should be referred to as a guide if available. Long exposure times may also produce a colour shift on the film - this not always undesirable and may even look quite attractive. Strange as it seems, slow film is better than fast in low light: long shutter speeds require a tripod or some other means of solid support, so you may as well use slow film due to its finer grain and superior colour saturation - unless, of course, you wish for a different effect.



For electronic flash there are basically 3 operating modes: TTL auto, normal auto, and manual. Not all guns have all the modes - TTL guns are usually 'dedicated' to a particular camera. TTL is theoretically the most accurate as the exposure is measured through the lens, and the camera turns the flash unit(s) off after the subject has been sufficiently illuminated. Their great advantage is that they allow you to use any aperture on the lens - increasing the versatility and flexibility. Normal auto operation differs in that the exposure is determined by a sensor on the flash unit itself. The drawbacks to this are that you are often limited to a few available apertures for a given film speed, and the angle of view of the sensor is fixed - it cannot take account of say ultra wide angle or telephoto lenses. For manual operation the gun will send out a fixed amount of light and you either (or both if needbe) move the flash closer or further from the subject, or adjust the aperture on the lens. Bulbs are used on manual. The exposure is determined by a simple formula (shutter speed is not important as long as it is no faster than the fastest sync speed of your camera):

$$\text{Flash to subject distance} = \frac{\text{Guide No (GN)}}{\text{Aperture}}$$

eg if you have a flash with a GN of 20 and you wish to use an aperture of f8 you need to place the flashgun 2.5m away from your subject. The GN of the flash is normally stated at ISO100, different film speeds give rise to different effective GNs. And yes, there is a formula for this too:

$$\text{New GN} = \text{Old GN (ISO100)} \times \sqrt{\frac{\text{new film speed}}{100}}$$

For example if your film is ISO50 for a GN20 flash you get a new GN of 14, and if say you used ISO400 you get a new GN of 40.

Although this note is really a bit of a sound-bite on some the principles, I hope it imparts a slightly different perspective to your holiday snapping. Space does not permit a fuller exploration of these and other useful theories, but with any luck has been sufficient to propagate a few ideas.

## References:

The Photographer's Guide to Using Filters, *Joseph Meehan*  
Lichfield on Travel Photography, *Patrick Lichfield*  
The Art of Colour Photography, *John Hegdecoc*  
Mountain Photography (2<sup>nd</sup> edition), *Raymond Higgs*