

CAVE MANAGEMENT IN IRELAND

- Kent Henderson

INTRODUCTION

In 1993, during a previous visit to Ireland, I visited two Irish Show Caves - Dunmore and Mitchelstown. I was quite unimpressed with the quality of the management of either cave. It was therefore with minimal expectations that I embarked on a tour the remaining three Show Caves in Ireland in September this year. Happily, for the most part, I was to be pleasantly surprised.

Leaving Dublin by hire car, I first made my way north and over the Northern Ireland border into County Fermanagh to visit Ireland's (possibly) best known caves, the Marble Arch Caves. Some may recall that quite a few Journal editions ago I published the *Marble Arch Cave Logo* (adjacent), which clearly must have been developed after an earlier visit from Ernie Holland!

MARBLE ARCH CAVES

Upon arrival I wandered around the caves' Visitor Centre. It was extremely impressive - the best I had seen anywhere in the British Isles or Europe over my three cave-visiting trips. The Centre is on two levels, with the upper mezzanine containing the reception/office area and some interpretive features, while the lower floor contains a coffee shop and a large range of displays. Several "stuffed" cavers hang from the roof, too - one looked a bit like Rauleigh Webb, although no others were immediately familiar.

I then approached the office, and met Richard Watson, the "Principal Officer - Countryside Management" for the Fermanagh District Council (the cave's operator), although we would call him more simply the caves manager! I was thereafter overwhelmed with kindness. Momentarily busy, Richard immediately tagged me onto an about-to-depart tour, promising a feast of discussion on my return to the surface. Thus, off I headed with a young university student guide - the *Bill of Fare* for casual cave guiding here I latter discovered. Other than Richard himself, my impression was the caves had no full time staff - similar to the direction of an increasing number of Australasian caves in more recent years, of course.

Our friendly young guide was no expert in his trade (of about one month's duration, he advised) and he asked me considerably more questions than I asked him. He was certainly keen, but to that point his training was clearly inadequate. For example, he genially advised the tour how stalactites were formed by evaporation, and was quite aghast when I later, as gently as possible, advised him of the "truth". Overall, the guide spent a considerable time extolling the virtues of the "fairy palace" aspects of the decoration, and little (although better than no) time explaining the cave's geology and conservation

values. To me, one should leave a cave tour not only entertained (and to be *commercial*, as it were, I freely admit guides do need to be entertainers), but with a real sense of the cave's importance from a great many perspectives. I did not have this feeling on leaving my Marble Arch tour, regrettably. Richard later extolled the virtues of his guide training program, but on my recent experience (albeit only one example) I was not immediately convinced.

A few axes out of the way, let's look at some orchids. The cave itself is wonderful! A rather massive phreatic passage cave, it has an active streamway through its length, not too dissimilar to many New Zealand Caves, though not as "wet". The tour lasts 75 - 90 minutes, quite long, but there is plenty to see. While written reference to the Marble Arch Caves dates back to at least the late 1700s, they were first systematically explored by the famous French speleologist Eduoard Martel in 1895. Martel carried out a full exploratory survey, and later produced a book on his discoveries. English cavers discovered additional passages in the 1930s, and various sumps were dived in the 1960s. A further 650m of cave was then discovered, bringing the total system to a surveyed length of 6.5 kilometres. The tourist section was lit and opened in 1985.

The tour itself begins with a stepped decent to the river through the "Wet Entrance", and a boat ride ensues for the first 100 metres or so, or at least should. Unfortunately, the boats were not being used while I was there, due to low water levels, so my party entered through the normal exit about half way along the tour route, though we did walk up to where one normally alights from the boat ride. The pathway follows the river course, and while there is no "big" decoration in the tourist cave, it is dispersed widely and in places quite profuse. Some quite impressive stuff, too.

A man-made passage (*The Flyover*) links the old Martel-explored section of the cave to the *New Chamber*, and onwards to *Moses Walk*. Now here was a new experience (at least to me)! Before the section which *Moses Walk* now links to, the ceiling of the cave descends towards the water level, not quite sumping, but nearly. Yet, there was a most impressive section of cave beyond. The solution the cave's developers came up with was to build a passage through the water, very much like Moses parting the Red Sea, but here on a very permanent basis! Quite a unique solution to the perceived "problem", and clearly quite effective, despite what one might think of the modification from a management perspective. Many will argue that minimalist cave engineering should be the *watchwords* in any development. What outcome this effective stream diversion has had on the hydrology of the cave, if any, I am not sure, but

presumably none. Nonetheless, impressive cave engineering it is, and the section of cave beyond is quite excellent.

However, let us return momentarily and look at development further back in the cave. The pathways are of well-constructed concrete, with adequate rounded wooden handrails, and there are also some sections of steel railing. The lighting was quite good (some coloured lighting aside), not overdone by any means, and relatively effective in highlighting cave features, but like most Northern Hemisphere show caves that I had seen (by now a large number), switching was minimal (which is marginally better than non-existent) with most lights on pretty much continuously. As one would expect, *lampenflora* rules in several places in the cave, including fern growth - with which many northern cave managers appear to have a special fascination. On page 23 of the colour guidebook to the cave (which in itself is quite well done), in the section on *Wildlife Underground*, there is a "wonderful" colour photo of luxurious fern growth next to a light, captioned: "Ferns growing next to an electric light in the showcave". There seems to be some sense of apology for this totally unnatural cave occurrence in the same guide book section: "Coloured lights are used in the cave to stop plants from growing over cave formations. Green plants do not use coloured lights as effectively as white light, and this prevents algae and mosses from covering the cave formations and spoiling their appearance." Yes, well. What an engaging rationale for colour lighting! Nothing, of course, that good switching, and in modern times 12v lighting, cannot largely fix as we know.

When we do get past *Moses Walk*, to the last section of the cave developed, things improve, I think? All pathways from here on are without handrails - notionally good stuff! From a positive perspective, this clearly enhances the vista of the cave and removes any possible feeling of being "enclosed", *per se*. Possibly on the negative side however, the pathways themselves have been artificially laid to meander through the steamway itself - unavoidably so given that the ceiling is relatively low (so no wall-suspended pathways are practical), and there are virtually no river banks to build on. To put it in an Australian context, it would be a bit like laying a gravel path up the middle of the shallow streamway sections of Croesus Cave, at Mole Creek, Tasmania. One really needs to ask, despite its beauty and undoubted value for interpretation, whether this section of cave should have been developed in the first place. As mentioned earlier, I have no data at all on the cave's hydrology to consider, so I am not in a position to comment further. That said, the pathways past *Moses Walk* are certainly a very major modification to the cave. Nonetheless, putting management issues aside, this section of the cave is undoubtedly of very high quality, and any visitor could not leave it unimpressed. Interestingly, as an aside, assumedly to counteract the lack of handrails, this section of the cave also has closed-circuit video cameras employed at strategic points.

Back on the surface, I was again in the most hospitable hands of Richard Watson, the cave manager - who had been such, I later discovered, since the cave's opening in 1985. In our subsequent discussions, I was most impressed with both his knowledge and his dedication. I left needing a new suitcase with all the literature and materials he most generously provide me. The integration of the caves into the local community, particularly in terms of extensive education programs with schools, I found especially impressive - one area where they are probably ahead of more than some Australasian cave locations. After our chat, Richard took me on a surface karst tour through the extensive forested area overlaying the caves, to the *Marble Arch* itself, the rather striking surface feature after which the caves are named.

Overall, by "British" standards, Marble Arch Caves were easily the best managed I had seen thus far. Compared to the standards we are used to/require in Australasia, not so, of course - but one really must compare apples with apples. Yes, it has its problems, and yes, definite improvements can be made, but given what I conceive to be the relative isolation of Irish cave managers, Richard and those around him have achieved a most commendable result.

Thus I bid Richard adieu, headed south back into the Republic, and the next day drove down to County Clare to visit my next destination, Aillwee Cave, near Ballyvaughan, located in a beautiful corner of Ireland known as *The Burren*. The fact that the area is mostly karst didn't do the scenery any harm either!

AILLWEE CAVE

Aillwee Cave lies roughly halfway up an imposing, treeless, karst mountain (after which it is named), given one the impression of a massive, seemingly unending, ancient ruin. The cave's Visitor's Centre has been constructed as a "fort" or "castle", totally out of the limestone rubble-rocks that strew the mountainside. As a result, it blends almost chameleon-like into the hillside. The vista from outside back over the karst landscapes that recede over many hills into the distance is quite spectacular. If the cave was as good as the view, I was in for something special.

I first entered the visitor's centre, which unlike that at Marble Arch Caves was a massive "tourist trap". Being a Sunday it was packed, with both people and every conceivable souvenir, only a small minority of which related to the cave. Interpretative displays were, largely, absent. As you will perceive, unlike Marble Arch, I was now at a commercially-operated cave system. The signs were not good, I thought... Having been badly squashed between several kitch-carrying tourists, I wandered outside to the cave ticket booth, met one of the part owners of the cave serving therein, and was welcomed warmly. She passed me over to the Head Guide, Carl Wright, who greeted me with equal warmth. Carl is an affable Englishman, who prior to his

appointment at Aillwee had some years of experience guiding and caving on the other side of the Irish Sea.

As luck would have it, Carl himself was about to lead a tour, and he kindly invited me along for the ride. The cave itself is a relatively narrow stream passage cave, with the stream emerging only in the later part of the 30 minute tour. The decoration in the cave is neither large nor profuse, but is certainly adequate for interpretation purposes. The cave, to some extent, trades on its self-built reputation as a sub-fossil cave, it historically having been a winter haven for the long since extinct (in Ireland) brown bear (*Ursus arctos*). Bear bones are prominently displayed and interpreted during the tour. The first section of the cave was developed and opened in 1975, with the tour extended to *The Highway* in 1979, with the final section toured added in 1989.

So, my impressions? Fabulous! The cave is superbly lit, equal to the best in Australasia. This was achieved in 1995, when extensive 12v lighting was installed. It is a great example of a quite "ordinary" cave which has been made outstanding by its lighting, and to some extent the thoughtfulness of its engineering - almost the antitheses of Marble Arch Cave, which in my view is a great cave to some extent made "ordinary" by its lighting, albeit now relatively dated. Coupled with this was absolutely first-rate interpretation. I may have heard his equal, but no better than Carl Wright. His tour was bright, entertaining, and the knowledge he imparted was both accurate and thorough. Plenty of excellent geology, speleology, history, and only a modicum of "fairy castles". He would be immediately employed anywhere in Australasia. The lighting, too, was not only well designed, but located to blend perfectly with the interpretation. It was almost as if the interpretation of the cave had been carefully thought through first, and lighting designed to fit it. Not a bad way to do it! Be that as it may, switching was another great feature of the cave, giving guides admirable flexibility. I was particularly impressed with the lighting of *The Waterfall* towards the rear of the tour, certainly a major feature, which drops from the cave ceiling to the streamway many metres below. Sealed perafloods have been placed directly underneath the waterfall lighting its entire length. However, I was somewhat less impressed to read later that the joint at the top of *The Waterfall* was originally a trickle, which had been purposefully enlarged in 1989 to create the current large cascade. Quite unnecessary cave engineering, I should have thought although, from a tourist perspective, *The Waterfall* is now clearly a key feature of the cave. Excellent tracking, re-laid only in 1995 when the cave was re-lit, is another feature. Many tracks are raised, some quite high, off the floor. Construction is largely steel piping, with steel mesh flooring.

An additional criticism I have of Aillwee Cave is the engineering of its exit tunnel. In 1991, the Aillwee Cave Company decided to create a circular tour by drilling a 255 metre exit tunnel back to the

entrance area. While well done as such, with appropriate sealed doors for environment controls, the efficacy of such a major modification is open to question. However, given the problem of touring 100,000+ visitors through the cave annually, one can appreciate a perceived need, at least.

In total, despite a few reservations concerning its engineering, Aillwee was clearly the best developed, managed and interpreted cave I had thus far struck in the Northern Hemisphere. In terms of the latter, I did leave my tour feeling that I had been imbued with the importance of caves in general, and of Aillwee Cave in particular. Its management in many ways compares most favourably with comparable Australasian caves, something which, based on my past experiences in the northern climates, I certainly did not expect to see.

But yet, I had one more unvisited Irish Show Cave to see. Bidding a grateful farewell to Carl, I drove south yet again to the town of Castleisland in County Kerry, to visit Crag Cave.

CRAIG CAVE

The cave is located but a few kilometres outside town, amidst the rolling farmland which overlies the local karst. I arrived at its outwardly impressive Visitor's Centre late in the afternoon, which I promptly entered to wander around. Internally, it was not dissimilar in size and type to that of Aillwee Cave, with a coffee shop and most extensive souvenir area. I approached the counter and made myself known to the cave's owner, Mrs. Margaret Geaney who, with that now very familiar Irish hospitality, immediately took me under her wing.

The cave was discovered only in 1981. A sump was dived in 1983, greatly extending its length when 1670 extra metres was surveyed. A further 1178 metres was discovered and surveyed in 1984. The cave's current surveyed length is 3.81 kms. Margaret became a cave owner/manager almost by accident. It just so happened her family owned the land over the cave! After considerable thought, and evidently even more considerable meetings with bank officials, the Geaneys decided on a development plan. After extensive research into caves in Ireland, Britain and Europe, development began in 1987, and a 350 metre tour was opened on 20 May 1989. Virtually, all the areas and features of the cave are named from the works of the famous Irish author J. R. R. Tolkien.

Margaret immediately decided to take me on a personal tour of the cave. The wide entrance shaft had been purposefully excavated, and several flights of steps inserted, with a sealed door at the base. The development of the cave was very good indeed. The concrete tracking and steel handrails looked appropriately located, by and large. Interestingly, the lighting was planned by a top theatrical designer, Mr. Michael Scott. Perhaps surprisingly, given the obvious differences (or are there?) between theatre lighting and cave lighting, he has achieved an admirable job. There was no obvious "over-

lighting" and the features of the cave were, to my mind, lit effectively. Switching is widely used. One novelty is that piped classical music is played in the cave on tours! One criticism of the development I do have is that considerable path excavation has been carried out in the cave floor at various points, to allow though tourist access where the cave ceiling was otherwise too low. However, it did not appear that any particularly sensitive areas had been dug out. Of course, many will argue that all cave flooring is sensitive.

There is quite an amount of stunning decoration in Crag Cave, with the final toured chamber, *The Crystal Gallery*, being particularly impressive. Several pools are interspersed in the cave as well, with excellent reflections scenes highlighted. Crag as a cave is fortunate to have been found in recent years, and has thus escaped the uncontrolled *stalactite rape* that many long-known caves have suffered in Britain, Europe and elsewhere.

I was particularly impressed, and fascinated, with Crag's answer to decoration protection - the use of glassed-in partitions. Of course, these have the dual advantages of affording excellent decoration protection, plus uninterrupted viewing. I immediately quizzed Margaret with the obvious question on condensation. She replied that it was only a minor problem. A guide enters the cave each morning prior to the first tour and wipes the glass with newspaper, whereupon it evidently holds without condensation for the balance of the day. Certainly, I was there very late in the day myself, and the glass was perfectly clear. This was the first time, anywhere, that I personally seen this solution attempted, although as I recall Ernie Holland has experimented with something similar in Ribbon Cave at Jenolan. Clearly, in Crag Cave, it works, although one assumes the humidity shifts in the cave must be minimal. My only "disappointment" was not to see an actual guided tour. I certainly would have liked to compare the interpretation presented with that of Aillwee Cave, in particular. Still, always next time!

After our private tour, Margaret and I sat in front of the pleasant open fire, and demolished several bottles of quite agreeable wine as we chatted. Later, she very kindly took me to dinner at a local hotel. I was particularly impressed with her passion for Crag Cave, and total dedication to it. She was extremely keen to hear about cave management in Australasia. As mentioned above, I got more than an impression that cave managers in Ireland are somewhat professionally isolated, which brings home how fortunate we are to have ACKMA, its Journal, and its Conferences available to us here. She did know both Richard Watson and Carl Wright personally, but contact with them was infrequent. I have arranged for all three managers to receive our Journal at least for the next 12 months, having left each of them with recent copies, and Margaret has expressed a genuine interest is coming out to Australia for the next ACKMA Conference at Naracoorte in 1999. I hope she will, and I look

forward to returning her wonderful hospitality at that time.

DUNMORE CAVE

The following day, I motored back to Dublin, but as was passing relatively close to Dunmore Cave, I decided to call in. I had visited this cave in 1993, and was curious to see if any improvements had been made in the interim. The answer was, sadly, no.

Dunmore Cave is in County Kilkenny, not far from the town of that name. It is open daily from mid-March to October, and on weekends from November to February. It is basically a large "single chamber" cave partitioned by rock falls, containing less than a quarter mile of "passages", and at its deepest point is 50 metres below its massive collapsed doline entrance. It is publicly owned, and managed by The Heritage Service of the Irish Department of Arts & Culture. It is officially described as a National Monument, but in its current state it is not one I would be proud of.

The cave was first mentioned in literature in the 9th Century, and coins excavated from the cave date back to 897. It is thus quite an important archaeological site. It was brought to its current condition as a self-guided tourist cave in 1967, when its Visitor's Centre was constructed, and the cave itself lit. Presumably, aside from having the "odd" light globe changed, it hasn't been touched since. The Visitor's Centre was also unaltered since my last visit. That said, the interpretive displays in the Visitor's Centre are quite good, featuring the caves geology, history and archaeology. Not to put too fine a point on it, the itself cave is appalling developed and managed, certainly by Australasian standards and, having now seen the caves discussed above, by Irish standards.

The tracking is uneven, compressed mud. Handrails, where they exist, are corroded and clammy. The lighting consists of massive para floods, which are on continuously throughout the day, and which looked to me as though they had been positioned in a game of "pin the tail on the donkey". It almost goes without saying that where ever one looks, one is blinded by the lights. It is almost impossible to view any decoration without seeing black spots before your eyes. The decoration in the cave consists mostly of large columns and flowstone, which is largely green. Yes, not copper impurities in the drip water, but *lampenflora* - by far the worse infestation I have seen. The other dubious "highlight" of the cave is, of course, the lavish fern growth around the overpowering light fittings. For all that, the cave does have some nice features, if one could actually see them - excellent large fluted columns in particular, which would possibly come up well if properly washed. Another great "feature" of the cave is a number of large, plastic-encased power transformers, beautifully "hidden" where you cannot fail to see them, and if not careful, trip over. As the cave is 240v lit, one

assumes they are there to stop voltage drops. Pity, the cave could use all the voltage drops it could get.

It is a matter of some regret that the last cave visitation of my trip was Dunmore, but I will long

remember the three other excellent sites I visited in Ireland, and even more so the warmth of the welcome I received from their managers, and their great dedication to the delicate resources under their care.