

Time to Change the Code of Ethics

Sydney University Speleological Society

Introduction

At the 1999 ASF Council Meeting, it was resolved to review the ASF Code of Ethics and Conservation (CEC) and Minimum Impact Caving Code (MICC). This submission discusses the need for change, and puts forward an alternative model.

Why review the Codes?

Most cavers are generally happy with the existing CEC and MICC. They seem to be working, in as much as no-one has pointed out any glaring deficiencies. Why, then, did the Council Meeting decide that a review should take place?

During 1998, the Federation investigated the issue of bolt laddering, and whether any modification was needed to its codes and guidelines. In its submissions on the issue, an edited version of which was published in *Australian Caver*¹, SUSS took a broad view to the question. Rather than confine its comments to bolt laddering, SUSS approached the issue by addressing the adequacy of the CEC and MICC to adopt to changing trends in cave exploration techniques. SUSS identified what it believed was a deficiency in the codes - an overly prescriptive approach that focused on regulating particular activities without consideration of those activities in the context of the cave environment. SUSS proposed inserting a series of provisions in the MICC relating to new cave and extension exploration that it believed were worthwhile and would have a positive conservation outcome whilst avoiding the problems of overprescription.

At the 1999 Council meeting SUSS's ASF Councillor was approached by many people who indicated support for the views in SUSS's submission. Several people suggested that in the light of SUSS's comments an overall review of the Codes was warranted. Several delegates expressed their sympathy with the aims of the amendments but were concerned that the terminology was not in keeping with that of the MICC. Accordingly, it was agreed to review both the MICC and the CEC.

Purposive or Prescriptive?

This submission builds on the approach adopted in the SUSS submission on bolt laddering in advocating that ASF adopt a purposive, rather than prescriptive, approach to the two codes under consideration. That is, rather than attempt to dictate to cavers precisely what they must and must not do, the Codes should aim at guiding cavers to make their own choices about appropriate behaviour in each of the myriad of circumstances that may present themselves in a cave.

This approach is a significant departure from the current CEC, which is almost uniformly prescriptive in nature, but is not foreign to ASF and is in fact in line with most modern environmental impact assessment procedures.

A good example which demonstrates the difference between prescriptive vs non-prescriptive codes is the contrast between the different versions of ASF's Cave Diving Code of Practice. On the topic of consumption rules, the 1988 version set out that generally the "thirds rule" should be followed, but when using propulsion vehicles or in less than ideal conditions the following rules should apply:

- 3.1.2 Penetration with inflow current: 1/4 rule.
- 3.1.3 Penetration with diver propulsion vehicles: 1/4 rule.
- 3.1.4 Penetration with less than favourable conditions eg. silt or restrictions: 1/4 rule.
- 3.1.5 Penetration with more than one of the above (eg. 3.1.2 and 3.1.4): 1/5 rule.
- 3.2.1 If buddy diving, where divers are using single volumes (1.2.2), then each diver must allow an adequate reserve for their buddy. (Consider that the buddy may have a greater consumption rate than the diver.)

The new version of that Code just adopted in 1999 replaces those prescriptive standards with a statement that the "thirds rule" should be followed, but:

"...this will vary depending on the cave, visibility, air chambers or other entrances, current, propulsion method, isolation, buddies, distance, equipment configuration, breathing mixtures, or experience."

1 SUSS, "Do We Need an ASF Code on Bolt Laddering?" *Australian Caver* 145, August 1998 p8

It can be seen that using far fewer words, the new Code not only gives the individual diver much more discretion as to the consumption rules to be followed, but also in fact covers more situations, and plays a valuable educative role in informing divers of the large range of factors that they should take into account when determining what consumption rule to use.

The MICC is also a non-prescriptive document. Many people appear to misunderstand the MICC, proceeding straight to the numbered sections and encountering statements like:

“If it is necessary to walk on flowstone in a cave remove any muddied boots and or clothing before proceeding **OR DON'T PROCEED!**”

Taken on its own, this statement seems to say that ANY flowstone must be walked over with boots off. But what about irrevocably muddied flowstone, you may ask? What if taking the boots off would make no difference? This is, however, not a flaw in the MICC, because the introductory section contains the following important rider to the entire MICC:

“The following practices ... may be modified depending on the type of cave being visited. It should be stated that we are discussing here a code which will ensure that cavers have a minimal impact on the cave they are visiting. In many instances the practices may not apply as the impact that cavers have, may be minuscule, compared to the impact of flooding of the entire cave, for example.”

SUSS believes that a recognition such as this that the same activity can have a different impact is a vitally important ingredient for any code relating to conservation. However, the current MICC only goes part of the way. It recognises that the measures set out in the MICC do not necessarily apply to any particular situation; however, cavers are given no guidance as to how they should assess any particular situation. It was this deficiency which the amendments proposed by SUSS at the 1999 council meeting attempted to address.

Of course, in some instances there may be activities that cavers think should never be carried out in caves in any circumstances. Examples that come to mind include leaving human waste in caves, or smoking in caves. It may still be appropriate to retain some element of prescription for these particular cases.

The Element of Trust

A key objection to purposive rather than prescriptive standards is that they seem to involve a greater element of trust. If it is up to cavers to determine the limits of their own actions, who is to say they will not deliberately push the limits when it suits them?

In SUSS's view, this ignores the reality of the situation. Any Code depends on some degree of trust to be followed. The question is merely the nature of the trust. In a purposive code, cavers must be trusted to determine whether or not a provision should apply in any given case, and then comply with it. With a prescriptive code, cavers must be trusted to follow the prescribed steps. There is just as much element of trust in both steps.

SUSS contends that the nature of trust involved in a purposive code is of more value, in a conservation sense, than that involved in a prescriptive code. To see why this is so, consider for a moment this rather broad generalisation. Ethically speaking, cavers can be grouped into three groups: those that do the right thing; those that would do the right thing if they knew what it was; and those who are not likely to do the right thing even if they do know what it is. The habits of the first and third groups are unlikely to be changed. But the maximum conservation benefit will be achieved by educating those in the middle group, so that they join the first group.

From an educational point of view, a prescriptive code is not terribly useful. Those in the middle group will follow it, without much idea of why they are doing so. They learn little about what is valuable in caves, how to recognise it, and how to preserve it - instead, they merely learn “If you want to do activity X, take steps A, B and C”, where those steps usually involve something administrative like getting the manager's permission or obeying permit conditions rather than taking positive conservation steps. On the other hand, a purposive code points towards a final outcome, indicates several potential ways to achieve that outcome, and makes cavers think about which is appropriate. The second group recognise that they have been entrusted with fulfilling a conservation goal, are given tools to use to fulfil it, and must set about the task of figuring out the appropriate solution. They learn about the interaction of different elements in the cave environment, and how to resolve problems of conflict. They recognise the trust put in them, and, being prepared to do the right thing, set about finding out how to do it.

Accordingly, far from being anti-conservation, placing trust in people to work towards the objectives of a purposive code is far more likely to achieve an overall increase in awareness of conservation issues than placing trust in them to follow the rigid provisions of a prescriptive code.

Two Codes - Better than One?

This review brings an opportunity to consider whether there is a real need for two separate ASF codes both relating to conservation.

The separation is in part a historical accident. ASF has long had a CEC, and the latest version was adopted in 1992. The MICC was adopted in 1995, and there has never been formal consideration given to the amalgamation of the two documents. However, the MICC states that it is to be “used in conjunction with” the CEC.

In our view, there is little purpose in retaining two separate codes. A single code is more desirable, but with two key roles. One role would be to set out the various principles to be followed by cavers (similar to the CEC); the other role would be to give some practical examples of how those principles may be implemented.

Language of the Code

At the 1999 Council Meeting, comment was made on the “easy to read” style of the MICC compared to the CEC. Several members expressed a preference for a more ‘familiar’ language to be used rather than ‘legalistic’ terms. If the Codes are to be rewritten to be less prescriptive, it would be easier to adopt a more friendly tone that may make them more palatable to cavers, making communication of their message easier.

The revised single code is about the same length - 2000 words - as the original CEC and MICC combined, but we believe it contains significantly more information and concepts.

Management Authorities

Specific mention should be made of the role of management authorities currently contained in the CEC. Generally, the conditions and wishes of management authorities should be taken into account and complied with by cavers. This is reflected in the current CEC, and in the draft. It should be emphasised that it is always open to managers to impose additional requirements on cavers to those included in the CEC.

However, as Henry Shannon has commented, management authorities may sometimes be unsympathetic to caves, and the interests of conservation may dictate that activities should be undertaken contrary to managers’ wishes. Examples that spring to mind are conservation-related actions within quarry lands, such as the occupation of Speaking Tube Cave at Mt Etna, clandestine surveying trips to assess the extent of quarrying at Yessabah and dye tracing from Bender’s Quarry above Exit Cave. All these actions would be technically in breach of the CEC as it exists at present, but had beneficial conservation results. It would be appropriate for any new code to recognise this lest managers be able to accuse cavers fighting conservation battles of breaching their own code of ethics in the process.

Conclusion

SUSS proposes below a departure from the current style of the CEC and MICC. However, it is designed to address the problems with the current code identified by many. Extensive explanations could be provided as to why particular approaches have been adopted in each case; however, we have not done so save for the general comments above.

No doubt many suggestions will be made as to how the draft code below could be improved. People will think of more impacts that should be listed, or better forms of expression. SUSS would be happy to hear them.

Draft Code of Conservation and Ethics

Protecting caves

Caves can be fragile and delicate places. Damage done in caves can be irreparable, and many sorts of activities can cause damage. Protecting caves is up to you. When visiting caves, take the time to consider the impact you are having, and how you might minimise it.

1. Moving through caves

1.1 Cave in a manner responsible to the cave environment. Take particular care to avoid damage to speleothems, sediments, biota and other natural phenomena.

1.2 Look around you. Recognise delicate formations and learn how to avoid damaging them. Some examples are:-

- Drip Holes/glop holes
- Stream Sediments
- Paleo soils
- Soil Cones
- Crusts and false floors
- Crystals
- Flowstone
- Cave Pearls
- Asphodilites
- Bone material
- Potential Archaeological sites
- Cave Fauna
- Coffee & Cream
- Tree Roots

1.3 The more people in a party, and the more equipment you carry, the more damage you may cause. Consider whether a trip for your purpose is appropriate in the cave you are visiting. Limit your party size to the number necessary to achieve the purpose of your trip. Four persons is a small but safe party size.

1.4 Move along routes that will reduce impact:

- a) Don't transfer mud from one place to another.
- b) Use a single track. If there is a marked route, keep to it. If not, mark a new track if appropriate. Don't wander about the cave unnecessarily.
- c) Be aware of delicate decoration on the walls, roof and floor, and avoid hitting them with helmets, cave packs or other equipment.
- d) Mud sediments can be valuable too. Select routes to minimise erosion of deposits.
- e) Consider whether you are disturbing wildlife such as invertebrates or bats. Avoid passing through sites where your presence may disturb or endanger these creatures. In particular, maternal or hibernating colonies of bats can be badly affected by nearby cavers.

1.5 Make the caving party work to avoid impact:

- a) Watch each other, and help others through the cave. Experienced cavers should stay near novices and assist them, not rush ahead.
- b) Warn each other of possible impacts and dangers.
- c) Take your time. You will notice more, and be less likely to damage the cave or yourself.

1.6 Protect rigging points and other sites of localised impact with packs, cloth or rope protectors.

1.7 Go caving with someone who knows the cave, and where sensitive areas are.

2. Taking things from or leaving things in caves

2.1 Try to leave the cave environment as near as possible to the way it was when you entered. You may need permission to leave things in or take things out of caves.

2.2 *Things not to leave in caves*

- Unnecessary markings like signatures or direction arrows on walls - use removable track marking instead.
- Rubbish, such as food scraps, human waste. Take containers to carry such things out with you. If you have to eat food, eat over a plastic bag to catch crumbs.

2.3 **Things only to leave in caves where appropriate**

- Scientific measuring instruments or other materials (remove on completion of experiment)
- Signs, track marking or fixed rigging gear used to ensure safety or minimise impact of future visits
- Inconspicuous survey points or other markers (like entrance tags)
- Safety equipment (like caches of supplies in long caves or caves where entrapment is likely)

2.4 **Things only to take out of caves where appropriate**

- Specimens for scientific purposes (like water, mud, rock, bones or fauna). Take the minimum needed for study.
- Historic items (like old tourist fittings or archaeological items)

2.5 After leaving a cave you may need to wash your boots and overalls so as not to carry mud and fungi into a different cave.

3. **Activities in caves**

3.1 When doing anything in a cave, consider:

- why you are doing it,
- what damage you may cause to the cave, and
- whether the impact on the cave is acceptable given the likely outcome.

3.2. Activities that are unacceptable in caves include:

- Smoking
- Drinking alcohol
- Throwing or sculpting mud
- Deliberately disturbing fauna without good reason
- Vandalism - breaking formations, defacing the cave

3.3 Some other activities are described in the table below:

Activity	Possible impact	How to minimise impact
Camping	Extreme disturbance of campsite High potential for dropping waste	Don't camp unless necessary for safety, or to achieve a speleological or conservation purpose.
Using explosives	Deposit of chemical residue Percussive blast effects on fauna Damage to rock	Consider the environmental impact and whether another technique could be used. Discuss with the cave manager and your fellow cavers, including your Society committee, and get their approval.
Air or water tracing	Deposit of chemical residue	Use a biodegradable tracing agent. Consider which possible method could be used with the lowest impact. Discuss with your fellow cavers including your Society committee and get their approval.
Excavating or enlarging passages or entrances	Changes the cave meteorology, which can have a major impact on fauna and cave processes Damage to rock	Use the minimum modification necessary. Consider other possible techniques. Consider what the possible effects might be. Discuss with your fellow cavers including your Society committee and get their approval.
Affecting water flows (including sump levels)	Can change the cave meteorology and other cave processes.	As above.
Installing permanent rigging	Visual and physical impact. Some metals can corrode.	Try to use natural anchors. Don't install anything purely for recreation, only for safety or to minimise impact. Leave as little as possible in the cave. Use non-corrosive materials.
Temporary rigging	Can cause high impact on anchors over time if the same rigging point is used often.	Protect rigging points and other sites of localised impact with packs, cloth or rope protectors.
Traversing	Damage or disturbance to biota or	Select your route with care. Keep to the trail,

biologically or geologically sensitive areas	geological phenomena.	or mark one if necessary. Remove boots or muddy clothing, or change clothes in clean areas.
Transport of equipment	Bulky and sharp equipment may damage rock and formation.	Minimise equipment carried. Wrap equipment in padding to avoid scratching walls. Carry carefully.

4. Exploring

4.1 There is a lot to think about when selecting the technique to explore a new cave or section of cave. Balance the likely gains of the exploration, and the methods you use to explore, with the impact you will have. Each situation is different. Here are some matters to consider:

- a) Am I likely to discover new information about the cave, including new passages?
- b) Is there an alternative route I could take?
- c) What technique, or combination of techniques, may be practical and safe while minimising impact?
- d) What can I do to minimise impact of future visitors (track marking, fixing permanent rigging)?
- e) Should I do anything to remove signs of exploration?
- f) Should I consult the cave manager or Society committee and get their permission?

4.2 Some possible exploration techniques that may have a significant impact on a cave are listed below. Note the possible impacts, and consider the suggestions in 3.3 above.

- Camping
- Using explosives
- Excavating or enlarging passages or entrances
- Draining sumps
- Installing permanent rigging
- Passing through geologically sensitive areas (formation, brittle rock, sediments)
- Passing through biologically sensitive areas (invertebrate or bat habitats)
- Carrying large amounts of equipment (diving gear, scaling poles)

4.3 Some things you may want to consider before beginning your exploration are:

- Do you have surveying materials to survey any discoveries?
- Do you have trackmarking materials to mark a new track through a sensitive area?
- Have you checked to decide if a route can be by-passed?
- Are there likely to be biological/microbiological processes to be investigated in the new area? Should you bring an expert along? Should you collect samples in this pristine environment?

4.4 Don't make all the above decisions on your own. In the interests of the cave, discuss the above matters with others in your party. Consider whether you need to consult the cave manager or Society committee, especially before undertaking any high-impact activity.

4.5 Any new information about a cave should be shared in an appropriate way, such as by publication in your Society newsletter and informing the cave manager. This stops other people from repeating your work, and lets everyone have the benefit of what you have done without adding to impact.

5. Respecting other cavers

5.1 Make reports on your caving honest and accurate. Don't sensationalise or exaggerate.

5.2 Acknowledge any contributions made by other people. This may include previous work, information people have given to you, or physical assistance.

5.3 Co-operate with other cavers. Respect their right to pursue their own activities without interference; and when visiting an area frequented by another society be considerate of any requests they make.

5.4 Conduct any disputes in a restrained and responsible manner.

6. Respecting the rights of cave managers and landowners

6.1 Landowners often do not manage the caves on their property; and cave managers often do not own the land where the caves they manage are located. Consider whether you need the landowner's approval as well as that of the manager for any action you may take.

6.2 Treat landowners and managers with courtesy and respect.

- 6.3 Get any permission needed before entering any property or reserve. Comply with whatever restrictions are placed on you.
- 6.4 Leave things on land as you found them, except if instructed otherwise. This includes gates, stock, crops, equipment and landscape features.
- 6.5 Don't impose on others. Be as self-sufficient as possible. Have your own water and supplies.
- 6.6 Respect a landowner or manager's decisions as to how to protect caves. Leave gates in place, reblock entrances that were blocked, and leave open entrances that are open. If you think different protection is needed, discuss it with the landowner or manager.

6.7 Activities affecting landowners/managers and their land

The activities below could all affect a landowner or manager, or be of concern to them. They will all usually require permission - consider whether you need it. Of course, some landowners or managers may require you to get permission.

Activity	Points to consider
Blocking an entrance, surface digging, blasting	Consider the effect on any stock or vegetation. Also consider the impact on the cave (see above). Will there be any runoff? Blasting can have a major impact and should be approved by the landowner, manager and your Committee.
Installing a gate or other structures (fences etc)	Why do I need to put up this structure? Is this the best way of achieving my means? Is there a better place? If placing a gate make sure: <ul style="list-style-type: none"> • keys are accessible both on-site and in a way accessible to cavers. This may mean leaving a key with a landowner/manager and keeping another for your Society. Always keep copies in case one is lost. • People can easily find out where to get the key. • There is a clear policy about who should be given the key.
Publishing information about caves	Who will read the article? Is it being published in an appropriate place? What is the landowner/manager's attitude? What is the likely effect of publication going to be on the cave? Publishing surface location information should be treated with particular care, as it could dramatically increase visitation.
Camping on a property	Do I need to camp here? Is there a recognised campsite nearby? Can I camp off the karst catchment? Observe recognised codes for minimal impact camping, removing all rubbish. Keep fires manageable and observe fire restrictions.

6.8 Unsympathetic cave managers

Occasionally caves are managed by unsympathetic people whose actions are likely to destroy caves or seriously damage them (eg mining companies). Encourage these managers to adopt a more responsible attitude to the caves in their care. In extreme cases, it may be in the interests of long-term conservation of the caves to take some steps to preserve the caves without the approval of the landowner or manager, or even contrary to their wishes. *This should only be done if no other conservation avenue seems practical and negotiations have been exhausted. It is strongly recommended that you get support from the ASF or the State Speleological Council before taking such steps, if at all possible, and consider any legal implications.*