RECREATIONAL CAVING DEFINITION

Recreational caving may be defined as the activity of entering a void, such as a cave, for the pure joy of the activity. When entering a cave, cavers would expect it to be totally dark, even during normal daylight, for the experience to be truly considered as caving. Most cavers generally agree that the definition of cave is “an underground void large enough for a person to get into.”

Although some measure of fun can be had checking out small cave-like openings, true recreational caving involves exploring longer cave passages, which also might include manmade voids such as mines and tunnels. A few deep pits and caves have long, relatively straight entrances that allow daylight to penetrate the entire cave, but cavers still consider these to be valid caving caves. Deer Cave in Malaysia and Neversink Pit in Alabama are examples of exceptions to the total darkness rule. The information in this article is based on caving in true recreational caves or voids.

Recreational caving as defined here includes sport caving as well as relatively easy cave recreation that might involve only walking passages and visiting caves in large groups. Recreational caving may overlap with more avocational or professional caving purposes when recreational cavers add speleological activities to their cave visits or vice versa. These avocational and professional activities may include photography, mapping, and various cave-related scientific specialties. Cave activities or caving have become a subordinate occupation for avocational cavers, who give many volunteer hours for the joy of it, as material compensation for caving is rare.

TYPES OF CAVES USED

The following five types of natural caves used in recreational caving are ranked by popularity, based on information obtained from cave publications and other sources. There are significant differences in cave popularity in some geographic areas, depending on the types of caves available for caving.

Solution Caves

Limestone and other solution caves are by far the most used by cavers for recreation. They are formed by several types of solution processes described elsewhere in this book. Availability is the most important factor in determining the popularity of types of recreational caves in a given geographic area. This is why limestone caves top the list of popular caves. This group also includes caves formed in marble, dolomite, and gypsum. These three types make up a small part of the recreational caving in solution caves.

Lava Caves

Lava caves, which are often referred to as lava tubes, are the second most common type of cave used for recreational purposes. Cavers cave in lava tubes as well as lava voids that are not in tube form.
These caves result from flowing lava and other processes described elsewhere in this book. Many lava caves have relatively flat floors and multiple entrances, making them suitable for those with limited caving skills. Lava caves do have their own special risks. They often have dark, very rough-textured surfaces with sharp edges that absorb light, reducing the effectiveness of caving light systems. Many novices have been amazed to discover the extent of torn clothing after traversing small passages in lava caves, in contrast to an equivalent-sized passage in a limestone cave.

**Sea Caves**

Sea caves are formed primarily by wave action at the shores of oceans and large lakes. They are the most common type of erosion cave. These caves are less common than limestone or lava caves and are always located at past or present sea levels. The relative predictability and attractiveness of their locations make sea caves the third most popular type of cave for recreational caving. Some sea caves have considerable incidental visitation by people primarily doing other forms of recreation. Many sea caves have no totally dark areas; however, this apparent deficiency is more than made up for by other factors. The interaction of tides and waves and the often abundant variety of life forms in and near sea caves are appealing to cavers who would not normally visit these comparatively small caves if they were not next to the ocean. Some partially flooded caves at sea level were formed primarily by solution processes or flowing lava. Technically, these are not sea caves but are solution or lava caves. Recreational cavers may not be able to make this distinction, and visitation information in some reports indicates visits to sea caves when it was in fact that caving occurred in solution or lava caves.

**Talus and Tectonic Caves**

Talus caves are formed when very large rocks fall from mountains or cliffs. The spaces between the rocks are sometimes large enough to allow a person to enter. Tectonic caves are formed by tectonic processes along faults near the Earth’s surface. Few people use talus and tectonic caves for recreation, as they are usually small and have few caving features of interest to most recreational cavers, making these the fourth most popular type of cave. Little documented caving occurs in these types of caves; therefore, ranking them separately is not statistically meaningful.

**Glacier Caves**

Caves are formed in glaciers and are the least popular type of the five natural voids used for recreational purposes. These caves are cold, wet, and unstable. Specialized skill and equipment are necessary to explore ice caves successfully. These caves are located only in glaciers and icefields; thus, they are rare and remote from population centers. Sometimes lava caves with permanent ice deposits are referred to as ice caves, but these ice deposit caves are still considered lava caves, despite the common mistake of referring to them as ice caves.

**Mines and Tunnels**

These and other voids in the Earth created by people are rarely used for recreational caving purposes because of their instability. In terms of absolute visitation, mines are used by mine workers far more intensively than caves are used by recreational cavers. Miners use some of the same equipment as cavers. Once abandoned, mines tend to become unstable, and owners are often obligated to construct gates or other barriers and post entrance restrictions. Among the few interesting exceptions to these generalizations about mines is the Wieliczka Salt Mine near Cracow, Poland. Part of the mine is developed as a show cave, but cavers should not expect to go caving in the mine, as visitors are limited to the show cave area.
OTHER VOIDS AND URBAN CAVING

Some manmade voids are occasionally used by people for caving. They might even use some of the same type of equipment, but in most places it is not recommended by caving organizations due to safety and legal considerations. As with all caving, the permission of the property owner should be obtained before entering. Most owners of abandoned mines and buildings will not grant permission for recreational purposes. However, some urban areas have mines, aqueducts, tunnels, and quarries that have become popular with people for recreation. The location of these voids near major population centers probably contributes to their use. One of the best examples is “Les Carrieres de Paris” or Catacombs of Paris. These tunnels under a portion of the city of Paris were originally Roman-era quarries that were modified in the eighteenth century as mass tombs to resolve severe overcrowding in cemeteries. Beside human bones, visitors will find considerable upscale graffiti in an extensive underground maze.

ACTIVITIES NOT CONSIDERED CAVING

Some activities that appear to be caving are usually not considered recreational caving by cavers. Visiting a show cave and show caving are activities done by many more people than recreational caving. Some surface activities, such as looking for caves (which cavers call ridge walking), are not considered caving in this section. This section presents a more precise description of traditional recreational caving by not including data from show caving and cave-related surface activities.

Shelter Caves

Shelter caves are small, naturally occurring voids that may be formed by any of the previously described cave formation processes. In addition, aeolian caves formed by wind are usually considered shelter caves. Many people visit shelter caves as an incidental part of other surface recreational activities, so there is little documentation of their visits. Because shelter caves are penetrated by daylight and require no caving equipment, visiting them is usually not considered recreational caving.

Show Caves

Show caves have manmade improvements that allow for easier passage; thus, almost anyone can go into one of these caves without any special skills or equipment. Show caves are managed as a commercial business that charges an admission fee or are maintained by a governmental agency, often as part of a park system, and may also require a user fee. Show caving is not considered caving by most cavers because of the cave improvements. The major disqualifying improvement is the artificial light provided, usually as a permanently installed electric light system or as a communal light carried by a tour guide. Some show caves have supplemental offerings and are referred to as wild caving. These cave trips may or may not be led by a guide. In either case, wild caving in show caves is considered recreational caving.

Manmade Show Caves

Manmade show caves are usually built to provide a hands-on educational experience for the public. The historic cave paintings in Lascaux, France, are shown to the public in a manmade cave that was created because the originals were being threatened because of changes in environmental conditions associated with visitation. Some such manmade structures do include the kinds of caving challenges that appeal to some recreational cavers and provide an opportunity to practice caving skills. Visiting these manmade show caves might be considered recreational caving, depending on the specific caving circumstances.
Abandoned Buildings

Little information is available on the recreational exploration of these types of structures, perhaps because it is often illegal. Manmade surface enclosures usually do not appeal to the traditional caver, although some of the same caving skills and equipment are used by the few people who do enter these structures. Most cave organizations do not recommend caving in abandoned buildings because of structural instability and legal considerations.

Factors Contributing to Recreational Cave Visitation

Some caves become very popular, with visitation averaging several hundred people a week; however, most caves rarely see humans, and the few who do enter have other purposes, such as mapping or research. Cave popularity can be affected by word of mouth, the media, availability of other recreational options, and cultural changes. Recent increases in the popularity of other forms of recreation and extreme sports may have provided alternatives for potential cavers; thus, the number of recreational cavers is most likely lower than it might be otherwise. Cave visitation can be influenced by the following six criteria, listed in a plausible order of importance:

- **Known existence.** The cave must be known to exist, and such knowledge is often spread by those taken to caves by previous visitors. The location of a cave can also be spread by word of mouth and by various print and electronic media. Keeping the location of a cave secret, at least in the short run, has significantly delayed the advent of recreational caving to these caves.

- **Physical access.** For visitation, a cave must have physical access. Factors affecting physical access to a cave might include gates, barriers, or proactive access control, as well as caves being difficult to find or requiring long hikes from the nearest road to reach the entrance. Other physical factors include vertical entrances, which reduce visitation of nonvertically equipped cavers to near zero but attract those with vertical caving capabilities. Water barriers or in-cave sumps usually keep all but properly equipped cave divers from entering.

- **Distance to cave.** With all other factors being equal, the farther a cave is from a given starting point, the less likely it is to be visited. The percentage of the population who has caved is higher in communities located in karst areas than in areas more distant from suitable caves; however, even moderate distances may change the nature of how people organize in order to cave. It appears that cavers living in urban areas tend to organize more effectively, perhaps to accommodate their transportation needs; thus, these organized cavers may continue to remain actively involved longer than those people who live close to caves but are not organized into a cave group. It is true that many very experienced cavers travel all over the world to go caving; however, most recreational cavers are not experienced and will go on only a few cave trips in their lives. Recreational cave trips tend to be to caves that are relatively nearby. It is reasonable to assume that a higher percentage of existing caves have been discovered in areas that are easy to access.

- **Caver appeal.** Popular caves have one or more interesting features that appeal to the caver, such as significant size and complexity, aesthetics, unique or unusual geologic features, interesting biota, fun caving features, caving challenges, or cultural mystique. The attractiveness of a cave to cavers often depends on the degree to which cavers can do the things they like to do in a cave,

https://search.credoreference.com/content/topic/caving
such as climbing through complex passageways, crawling into different parts of the cave, and exploring and seeing interesting cave features.

- **Suitability for group caving.** Almost all recreational caving is done in groups of 3 to 30 people. Caves without places where people can stop and socialize or at least communicate are noticeably visited less often by recreational cavers.

- **Legal access.** Anarchy exists in a few places in the world, and social deviance occurs to some degree in all cultures. These factors partially account for the fact that the single act of legal posting or closing of a cave is not always effective. Cave owners usually take additional actions if they intend to achieve total compliance with their cave restrictions. Some posted caves with little or no enforcement may continue to have cave visitation; the extent of the trespassing depends on the respect for property rights among the area's cave visitors. All respected cave organizations recommend that cavers should never trespass in a cave that has been gated or posted. Serious consequences of ignoring such postings include lawsuits, serious injuries, and fatalities, partially due to spelunkers disregarding cave closings.

**WHY PEOPLE BEGIN CAVING**

There is no single reason why people enter caves. Attempts to sum up caving using a short, catchy phrase have resulted in oversimplified explanations. People who cave do so for many different reasons. Non-cavers may find it difficult to imagine why anyone would crawl in the mud, climb in the dark, and go into tight places. Most people start caving to have an enjoyable experience. The most common reasons why people cave are listed below. They apply to novice as well as avocational cavers.

- **To enjoy the company of others in a fun group activity.** The social aspect is a significant factor for novice recreational cavers. Schools, youth groups, and community groups often sponsor cave trips.

- **To explore or have an adventure.** (Zuckerman, 1994) Maze exploration is considered great fun by many. The excitement of cave exploration can be compared to exploring a complex maze. The curiosity to see what is around the bend in the passage or beyond the extent of one’s light leads the caver on. The increased adrenaline and other hormone production in the stimulating cave environment provides a pleasurable sensation. Some people enjoy this experience and will return for more. Psychologists (Archer and Birke, 1983) have provided strong evidence from studies of animals and people that exploratory behavior is an innate characteristic. If so, this behavior may explain why people cave; however, it does not explain why they cave as opposed to choosing other forms of exploration. It is unlikely that an innate exploratory need completely accounts for caving behavior, as most people explore other things and never experience the inside of a cave.

- **To accomplish something unique, to see things that most people have not seen or done, or to learn something about caves and nature.** For example, some cavers have the goal of discovering a “virgin” cave, a cave passage thought to have had no prior entry by humans.

- **To engage in a physical or sporting activity for the personal challenge or just for the exercise.**

**THE OCCASIONAL DOWNSIDE**

Sometimes a person goes on a cave trip with mistaken assumptions, believing that it will be an exciting adventure full of glamorous achievements and revealing a hidden world of wondrous vistas, not to
mention the possibility of finding something of value such as a hidden treasure. It is a considerable
disappointment when the new caver discovers reality. It is often hard work getting to and through
caves. Much of the time is spent traversing passages that are anything but glamorous, and the
wondrous sites are few and far between. No crowds are cheering the caver on. Actually, only a few
other people care about these exploits. On top of all that, there is no buried pirate or other kind of
treasure in caves, and in most places laws prohibit the removal of mineral formations and artifacts. In
fact, most cavers help enforce these laws, and the National Speleological Society (NSS) even offers a
reward of up to $1000 for the arrest and conviction of anyone guilty of cave vandalism (check with the
NSS about the current status of this award). It is not unusual for a new caver to emerge from a cave
wet, muddy, bruised, and tired with sore muscles he did not know he had and nothing much to show for
his efforts, with memories being mostly of mud and rock seen from a distance of 20 cm while crawling.
He has probably decided this will be his first and last cave trip. In fact, he has a lot of company, as
between one fourth and one half of the people who have gone caving once will never go on another
cave trip. This figure does vary, depending on the type of cave trip in which the person participated
and the types of future cave trips available. Cave trips that are competently led in caves appropriate
for the first-time caver will lead to higher repeat caving rates.

NOVICE CAVERS
Since the founding of the National Speleological Society in 1941, there have been significant
improvements in caving techniques, equipment, and safety procedures. Many recreational cavers are
among the best-equipped and most experienced cavers. As a result, recreational cavers have
penetrated farther into caves and coped with more challenging situations.

Inexperienced cavers sometimes try to emulate competent recreational cavers with bad results when
they exceed their skill level and have inadequate equipment for the situation. Novice cavers make up a
significant portion of all recreational cavers and sometimes can be identified by their inappropriate
equipment, misdirected motivation, or lack of cave knowledge. Some novices who have not had a good
orientation and/or have had no contact with the mainstream of the organized caving community may do
strange and sometimes dangerous things in caves. For example, while there may be some instances
when the following items might be appropriate in a cave, the possession of some of these items in a
cave and the kinds of reasons given for having them usually identify the person as being either
unprepared for cave trips or someone who has plans to vandalize the cave. In general, one should not
take any of the following into a cave on a recreational trip:

- Large knives for killing snakes, bats, or other wildlife
- Guns for shooting bears or outlaws
- Handheld flashlight or candle as the primary or only light source
- Inadequate or unreliable light sources or no light source
- Clothesline or other light-duty rope for rappelling down a drop or pit
- Hemp rope for climbing hand over hand out of a pit
- Balls of string to unwind and mark one’s route in order not to get lost
- Hand-carried coolers for beverages, especially alcoholic beverages

https://search.credoreference.com/content/topic/caving
• Alcoholic beverages or mind-altering drugs
• Paint, especially a can of spray paint
• Equipment for collecting cave mineral formations

Except when it is clear that such equipment has been brought along for certain professional or ceremonial activities, observing someone with any of this equipment should cause enough concern to take appropriate action. Some cavers might try to advise such a person of the inappropriate use of the items and recommend corrective action before going caving. Cave conservation and appropriate equipment and techniques are discussed in other chapters of this book.

Unfortunately, a few recreational cavers have engaged in destructive activities such as painting graffiti in a cave, breaking speleothems, stealing mineral formations and artifacts, and harming cave life. Many states and some countries have cave protection acts that provide for punishment under the law for harming caves or their natural inhabitants. Cavers will sometimes refer to cave vandals as spelunkers.

The term **spelunker** is often applied to recreational cavers. The word is derived from the Latin word *spelunca* ("cave") or the even earlier Greek word, *spelaion*. However, in the organized caving community today, comprised of those who have learned proper techniques for cave exploration and developed an awareness of the fragile nature of this underground resource, the term **spelunker** has become a derogatory term. The majority of English-speaking cavers would not refer to another caver as a spelunker, although there are a few exceptions to this rule. Two cave clubs in Missouri are composed of competent cavers with an independent spirit who refer to themselves as spelunkers.

**WHY DOESN'T EVERYONE CAVE?**

Some avocational cavers have wondered why everyone does not go caving, while other cavers are glad everyone doesn't. Millions of people living in North America have caved at least once. Professional and avocational cavers number in the tens of thousands. For these thousands, caving is the epitome of experiences life has to offer. The stereotypical cave trip involves crawling or wiggling through tight places, sometimes no more than 20 cm high, where mobility is severely restricted. Sometimes cavers must crawl through a stream or slide through a passage on their back, with only a few inches of air space between the water and ceiling. Some cavers thrive on these challenges; others do not. Anyone with even mild claustrophobia will be unlikely to return to this type of activity. The same is true of people with acrophobia, as many caves have floors that are little more than a series of rocks, boulders, crevices, and pits. Bats and a variety of invertebrates do not appeal to everyone. Erroneous beliefs and imaginary threats stop others from even considering going into a cave. The vast majority of the population does not enjoy these types of experiences. They either avoid exposure to such situations or accept them as a one-time experience in life. Some people enjoy a more sedentary lifestyle that is incompatible with sport caving. Most caving requires effort, sometimes strenuous effort, to participate.

Other limiting factors include vertical caves with entrance drops or pits. These entrance drops may be anywhere from a few meters to more than 300 meters deep. Special skills and equipment are needed for this type of caving. Many difficult cave rescues have been a result of poorly informed and inadequately equipped recreational cavers attempting to descend into vertical caves.

**A CAVING LEVEL FOR ALMOST EVERYONE**
People interested in caving are pleased to discover that they can choose caving activities appropriate to their training and interests. Caving varies widely in its intensity, required skills, and equipment. Exploring some caves requires little more effort than taking a short hike; such caving requires no special equipment beyond a good light system. Diversity is the very nature of caves, and cavers can pursue their interests in many different cave environments. Caves present a continuum of difficulty requiring more organization, planning, and stamina. Cave divers require special training and underwater breathing equipment.

Someone seeking an athletic challenge or someone who is an extreme sports aficionado can find caves suited to their goals. Cavers who search for new caves, draft cave maps, or take cave photographs have a seemingly endless opportunity to find and record nature's handiwork. A cave is usually a low-energy environment that is often isolated from outside environments and hence spawns many different life forms. Caves are a natural attraction for geologists and biologists. This variety of activity attracts people with widely varying interests, nowhere more pronounced than at a National Speleological Society annual convention, where the program includes numerous special-interest sessions, contests, and workshops stressing various cave-related skills, as well as hundreds of different presentations.

**WHY DO PEOPLE CONTINUE TO CAVE?**

The transition from recreational caving status to being an avocational caver or speleologist often occurs as these cavers find that caving is more interesting if it has a purpose. Caving merely to do informal exploration of a cave that many others have seen and studied before may no longer satisfy the needs of the more adventurous. A few cavers have adopted caving as a life-long avocation. The careers of most speleologists were preceded by some recreational caving. Others who were recreational cavers at one time may have stopped caving for various reasons but maintained their support of cave organizations and goals, and are involved in other cave-related activities.

The hierarchy of human needs model proposed by Maslow (1954) describes the sequence in which people focus their efforts on meeting their various needs—physiological, safety, belonging and love, esteem, self-actualization, cognitive, and aesthetic. People meet their more basic needs first and then proceed to address their higher needs. Considering the characteristics of large, complex, and scientifically interesting caves, it can be easily understood how caving meets the self-actualization, cognitive, and aesthetic needs of an avocational caver. Participation in cave-related organizations may also meet some belonging and esteem needs. A person mainly focused on basic needs and trying to survive is unlikely to participate in caving.

**DEMOGRAPHIC FACTORS**

Contemporary studies conducted by members of the National Speleological Society have discovered several significant differences between cavers and the general population. None of these studies has been published outside local caving newsletters, but the results are intriguing:

- **Age.** The mean age of recreational cavers, as determined by information gathered from cave registers between 1975 and 1985, was 21 years (mode, 18 years). The frequency of caving decreases significantly with increasing age. Anecdotal information obtained recently indicates that the mean age of cavers may be greater by several years.

- **Sex.** Males make up 75% of cavers and an even higher percentage of cavers on cave trips, which indicates that males have taken a greater average number of cave trips. There does not appear to
be any component of recreational caving that would favor one sex over the other. Most people say that cultural factors account for this difference. While this may be true, it is not an adequate explanation. A more explicit hypothesis suggests that caving activity is closer to traditional male activities such as outdoor physical activity, exploratory behavior, and risk taking. These activities, plus being covered with mud and dirt when caving, are not those normally associated with traditional feminine activities. A test of this hypothesis would occur in a society where the roles of women have veered away from the traditional feminine roles; if caving is primarily a culturally linked phenomenon, then one would expect the percentages of female cavers in such a society to increase.

- **Race.** In North America, Caucasians are the most numerous ethnic group, representing at least 95% and probably more of all cavers. There are far fewer African-American cavers than would be expected, given their percent of the population. There is anecdotal information that caving activity among Hispanic populations is lower than for non-Hispanic Caucasians. Recreational caving exists in most parts of the world, but data indicate that the percentage of the population engaging in recreational caving is highest in Europe and North America, although no definitive studies on this issue have been conducted. One plausible explanation that may account for some of these differences could be that recreational caving is similar to other forms of recreation that require significant leisure time and equipment. While the cost of basic caving equipment is not considered expensive by Western standards, it might be beyond the reach of many. Maslow's hierarchy of needs may also help explain this difference, as people will focus most of their attention on meeting basic needs before acting on higher needs. The hypothesis is most plausible if one assumes that in Europe and North America a greater percentage of the population is focused on meeting their higher needs, and recreational caving fulfills these needs for people who are active cavers. While Maslow's hierarchy of needs may account for some caving frequency, other factors are at work here that have not been studied in relation to recreational caving.

- **Length of cave trips.** The length of cave trips can last from a few minutes to several days. Most recreational cave trips fall within 2 to 8 hours, and the average is about 4 hours. The length of cave trips is mostly a factor of the size of the cave, difficulty traversing a particular cave, and the interest and ability of each caver.

- **Cycles in cave visitation.** Cycles in the frequency of caving do occur (e.g., seasonal variations), with the warmer months being more popular than the colder ones. Because most caves have a relatively constant temperature year-round, it appears that factors other than temperature are more important in determining when to go caving. Also, weekends are generally significantly the most popular time to visit caves.

## CONTEMPORARY TRENDS

The Outdoor Foundation (2010) published its most extensive survey ever on outdoor recreation. The results show a continual decline in participation in many forms of outdoor recreation from 2006 through 2009. A few activities such as adventure racing, snowshoeing, and kayaking did have significant increases in participation. Caving was not included as a category and the report does not mention caving or caves at all. However, an activity such as sport climbing could serve as a proxy for recreational caving in lieu of any other systematic study. The survey showed a modest drop in participation in the four years of the study. This study gave some of the reasons young people gave for not participating.

[https://search.credoreference.com/content/topic/caving](https://search.credoreference.com/content/topic/caving)
in outdoor recreational activities. They include lack of interest, no time, no access, prefer TV and movies, computer or video games, and hanging out with friends.

From 1950 to 1980, young people from the age of 15 to 30 dominated participation in caving. That demographic is relatively much less common now. This change in society away from outdoor activities is dramatically on display at many gatherings of cavers in which the older ones far outnumber the young. Historically, the vast majority of older cavers and members of groups such as the National Speleological Society started caving when they were young.

Social norms evolve over time and can be driven by technological change. Today, the ever-present Internet and other electronic media offer an alternative method for work, recreation, and finding information. The reality is that people now have more choices in how to use their time. If one wanted to learn about caves or have a visual cave experience, a case could be made that the most efficient method would be to use the Internet. For example, there are now many times more cave photos on the Internet than there were available in all printed material published more than 30 years ago.

**SUMMARY**

While recreational caving has parallels with other forms of recreation, its diverse nature allows people to enjoy an activity in the same places and sometimes in the same organizations as professionals with similar interests. People cave for many different reasons, at many different skill levels, and in several different types of caves requiring a variety of equipment and techniques. While young males are the most common cavers, all types of people can be found caving. People have clear preferences in the features and types of caves they choose and in the distances they choose to travel to cave. Recreational caving can be a risk to both the cave environment and the caver. The effort required to navigate through restricted passageways filled with water and mud, drops, rough terrain, and assorted other obstacles is enough to keep most people from trying it or discourage them from returning. These same features are part of the appeal of a cave and contribute to the cognitive challenges, diverse types of participation, and spectacular aesthetics associated with caves. These features may also be less unique with the advent of newer forms of recreation and electronic media which may offer alternatives that are contributing to a declined in participation in recreational caving.

**See Also the Following Article**

Exploration of Caves—General

**Bibliography**


John M. Wilson
Marks Products, Inc.

**APA**

https://search.credoreference.com/content/topic/caving
APA

Chicago

Harvard

MLA

https://search.credoreference.com/content/topic/caving