

SURTSHELLIR IN HALLMUNDARHRAUN

Historical overview, exploration, memories, damage, an attempt to reconstruct its glorious past

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The Hallmundarhraun crater, from NE
Eiríksjökull, the largest tuya on earth, in the background



Historical overview

Surtshellir is first mentioned in the scaldic poem Hallmundarkviða, in Bergbúaþáttur, one of the shortest chronicles of the Icelandic Sagas (1). The chronicle deals with a farmer and a farmhand seeking a refuge in a cave in a snowstorm. The cave is inhabited by a troll. The troll does not object to the presence of humans. During the night it delivers a twelve stanza poem three times, with a bad omen to it: If the overnight visitors can't learn it, they will not enjoy a very long life !

The farmer memorized the poem and led a happy life. The farmhand however did not and perished shortly afterwards. The poem is ancient and stems from heathendom, from long before Christianity became the official religion in Iceland in the year 1000 AD.

Hallmundarkviða is hard to understand.

The scene is mountains, gorges, a volcanic outbreak, earthquakes, lava fields and lava tubes (2). The thundergod Thor and the firegod Surtur wrestle. The earth quakes, it's on fire and it burns. Kristján Sæmundsson 1966 (3) dates the Hallmundarhraun lava to 662-1016 AD and points out the fact it might have erupted around the time of the settlement of Iceland (in AD 874). Halldór Laxness 1969 (4) collected bone samples from Beinahellir / Vígishellir (Robbers Roost) in 1948 which were dated to 781-1237 AD. Haukur Jóhannesson 1989 (5) examined a soil section underneath the Hallmundarhraun lava and found the so-called Settlement layer, a very conspicuous solidly dated tephra layer, 871+/-2 years AD, just underneath it.



The Hallmundarhraun fires must therefore have been among the first volcanic outbreaks which the settlers experienced. The settlement of Iceland officially started when the Viking Ingólfur Arnarson settled in Reykjavík in 874. Hallmundarhraun is 27 miles long, it covers an area of 80 sq. miles and the volume is estimated to be 1.2 -1.4 cubic miles (6).

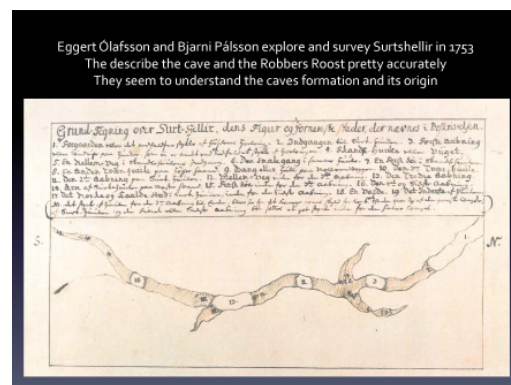
The Hellismanna saga, (a short 13th century adventurous tale) (7) relates how a band of outlaws took refuge in the cave in the 10th century and their subsequent killing. The monumental Sturlunga saga (also 13th century) (8) mentions the torture and maiming of Órækja

Snorrason (son of renowned historian and chieftain Snorri Sturluson) taking place in Surtshellir around the year twelvethundred thirty.

Exploration

In a letter to Olaus Borrichus 1675, Þorkell Arngrímsson, 1629-1677 (9), the son of Arngrímur Jónsson the Learned, 1568-1648, starts with writing about (10) having sent Olaus a few stalactites the year before. Þorkell mentions the stalactites and describes Surtshellir as a being a work of art. He estimates that its length exceeds 240 paces, with a width of thirty paces and the height being about the same as the width. He also describes the two main side passages, the Robbers Roost (Beinahellir / Vígishellir) and Vik.

The naturalist team Eggert Ólafsson and Bjarni Pálsson, 1772 (11) explore and survey Surtshellir in 1753. Judging from the direction of the flow of lava, they conclude that it must either have originated in the faraway Geitlandsjökull, or in the mountains behind it. They were immensely impressed by the cave, and proceeded to describe its size, the walls, horizontal benches, shelves and markings, the curious glazing of the walls, the stalagmites and stalactites, other formations and the Robbers Roost.

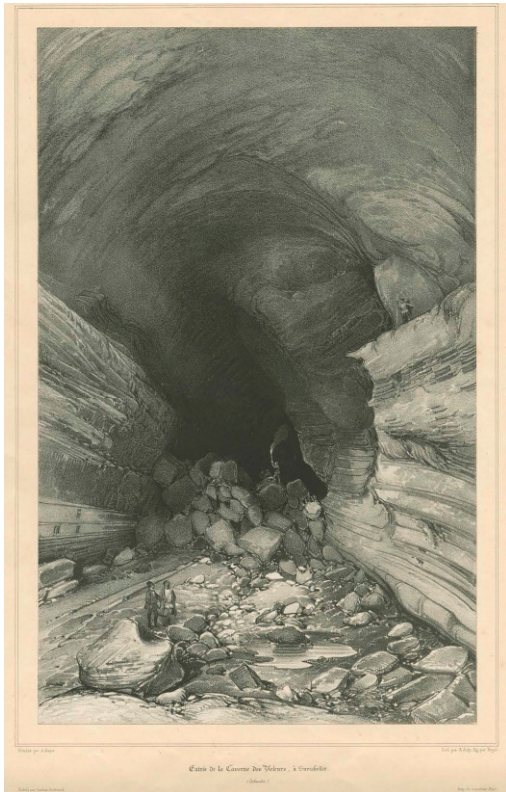


Both Eggert and Bjarni were highly educated naturalists and way ahead of their time. Bjarni later became the Royal Surgeon General of Iceland and Eggert the Vice Administrator of the North and West Iceland. They grasp how the cave came into existence and seem to generally understand how its structures were originally formed. They describe the Robbers Roost and discover a large heap of soft decaying bones which they find to be highly

interesting. The heap was about six paces across and consisted mostly of cattle bones, all broken to the marrow.

They describe stalks of curious penta- and heptagonal crystals and other ice formations in the lower part of the cave (Íshellir), and find the icy surroundings to be stunningly beautiful. In the distal end of the ice-cave they came across an old cairn. Eggert and Bjarni were the first to survey Surtshellir. They measure the total length of it as being 839 fathoms and take a few rock samples.

The next important description of Surtshellir stems from Ebeneser Henderson 1818 (12), a Scottish priest based in Copenhagen. Henderson was the founder of the Icelandic Bible Society. He brought a new translation of the Bible to Iceland in 1814 and distributed it around the country in years 1814-1815.

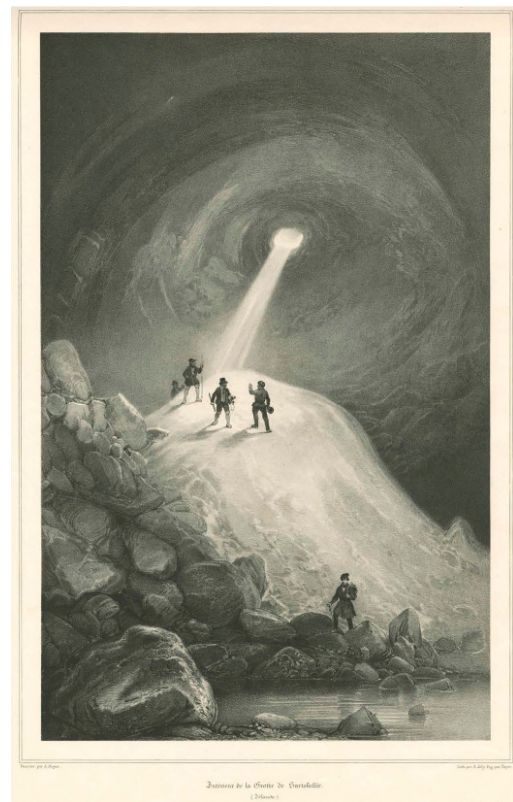


Henderson describes the main cave and the side passages with the Robbers Roost. He finds the ice formations in the ice cave, the distal part of the Surtshellir system, awe-inspiring, stunningly beautiful and describes this white glittering fairy world in a vivid poetic manner.

French royal explorer Paul Gaimard 1850 (13) visits Iceland and Greenland on the La Recherche vessel during summertime in both 1835 and 1836. The expedition's draftsman, Auguste Mayer draws four

lithographs of Surtshellir. Mayer's pictures were the first to show the majesty of the cave.

Next, it is two Germans, William Preyer and Ferdinand Zirkel 1862 (14) who visit Surtshellir in the summer of 1860. They describe formations in the side passages of the cave far more accurately than their predecessors and mention a substantial amount of stalactites in the passage down flow from the Robbers Roost and in the opposite side passage Vik: *"Hier finden wir die längsten und schönsten Tropfsteine und in sehr grosser Menge."* They also mention taking samples from the bone heap.



Iceland became more and more popular among wealthy foreign visitors from the middle of the 19th-till the beginning of the 20th century. Most of the visitors seem to have taken "samples" from the bone heap and also seem to have taken samples of whatever formations they could find as souvenirs. It almost became a standard practice.

Two Austrian brothers, Zugmeyer 1903 (15) visit Iceland in the summer of 1902. The younger brother was an engineer. Together, they proceed to survey Surtshellir for a second time (after Eggert's and Bjarni's initial survey of 1753). They mention the decorated part in one of the side passages which Preyer and Zirkel had visited in 1862 and declare:

“Ihre Decke ist mit zahllosen, aber nur 0,4 – 1.2 Zoll langen Lavastalagtiten bekleidet”.

This can only mean that the stalactites were substantially shorter in 1902 than 40 years before. Visitors had to walk with their backs bent in these parts of the side passages, because of the low ceiling. Walking bent over like that, people are unable to look straight ahead and therefore unable to see what was hanging from the low ceiling immediately in front, just above their heads, and thus they tended to bulldoze the formations off the rock face.

Indeed, there is less and less mentioning of formations in visitors' reports, starting with that of Eggert and Bjarni in 1763 and thence onwards to Zugmeyers' 1902 (15) and Matthías Þórðarson's 1909 (17). Formations disappear from the reports as time goes by, the reason being, that you can't see what's gone already, it's not there any more!

In 1917, 15 years after the Zugmeier's visit, young Stefán Ólafsson from the farm of Kalmanstunga, only 16 years of age at the time (born in 1901), discovers an upwards flowing extension of Surtshellir, with two cairns showing the way in that cave, just like there had been a cairn in the Íshellir main cave, when Eggert and Bjarni explored it (11). The three cairns are irrefutable proof that both parts of the Surtshellir-Stefánshellir system had been visited by humans before 1753/1917.

Matthías Þórðarson 1920 (16), a friend of the people in Kalmanstunga, and at that time the Curator of Archaeological Remains and National Monuments in Iceland, learnt about the extension of Surtshellir two years later, in 1919. Matthías and a friend of his Helgi Hjörvar, accompanied by their wives, visit Stefánshellir in the company of young Stefán, the following year. Matthías (15) is fascinated by the intricate structure of the cave and the evenness of the floors; he talks about how remarkably uncollapsed the cave is and how easy it is to get around on the level smooth floors. There had been exceptionally cold winters during the previous years, especially in 1919, when ice covered the floor in places and ice formations decorated sections of the cave. In his four page description of the cave, Matthías (16) does not mention any rock-formations at all.

However, Matthías was already familiar with lava caves. He had explored the Surtshellir and Víðgelmir caves in the summer of 1909 (17), i.e. eleven years prior to his Stefánshellir visit. He also knew about the exploration of Raufarhóls-hellir in South-West Iceland in 1909 (18). In his 1910 description Matthías (17) mentions that the bone heap in the Robbers Roost has shrunk significantly, both since Eggert and Bjarni observed it in 1753

(11) and since P.E.K. Kálund described it in 1873 (19).

Matthías (17) had been absolutely fascinated in 1909 by the profuse lava decorations which could be found in Víðgelmir, a majestic lava cavern, situated a few kilometers downflow from Surtshellir.

Somewhat by lack of adequate words, he reflects on the necessity of having Víðgelmir declared a national monument and mentions the possibility of gating it.

Martin Mills and Chris Wood survey Víðgelmir in 1972 (20). They are quite impressed by the cave and say at the end of their report: *A case for cave conservation; Víðgelmir lava tube cave is the outstanding example of Icelandic caverns which we have so far examined. It possesses many unique features and is particularly notable for its impressive size, its wealth of lava formations and its distinctive ice section.*

Memories, ÁBS.

My grand-aunt Valgerður, my grandmothers sister, born in 1901 (like her husband Stefán), was the housewife at Kalmanstunga from 1930-1958.

Kalmanstunga is the farm which is situated nearest to the huge caves of Hallmundarhraun and most of that lava-field's caves are property of the farm of Kalmanstunga with the exception of Víðgelmir-cave, which was awarded to the nearby farm of Fljótstunga around the turn of the 19th century. The leaseholders of Kalmanstunga were the first people to explore all the great caves in the area, with the exception, however, of Surtshellir.

I was first sent by my parents for a stay at Kalmanstunga at the tender age of five. It was customary in Iceland in those days to send children, even at a very young age, to relatives in the countryside to learn the ways of the land and lend a helping hand in whatever they could. I fetched the cows, ran errands, started riding horses at six and driving the tractor at ten for example. My first stay, in 1954, lasted four weeks. I instantly fell in love with Kalmanstunga and the majestic environment of the upper Borgarfjörður region. For the next nine years, I spent the four month of summer there, always as a helping hand. Of course, I was given added responsibilities as I grew older and at the first sign of springtime each year, I just could not wait to get over there.

Like every good housewife, Valgerður was in charge of everything. Her words were law. One of her laws was: One does not break rock-formations! Stefán and Valgerður were friends of the Iceland's renowned geologist Sigurður Þórarinnsson who was a treasure trove of information about lava-caves. Sigurður pioneered several nature conservation

efforts in the fifties (21). In 1956, he took part in drafting the first nature conservation legislation in Iceland (22) and had a seat on the board of Náttúruverndarráð (Nature Conservation Council) est. 1956.

„Valgerður’s law“ became a national law (23) when, in 1958, lava formations were declared national monuments by the Nature Conservation Council and thus, as a rule, protected. Sad to say, however, this law or declaration has never been strictly adhered to and even less enforced.

One day Valgerður instructed her husband to show the kids, me and a year older niece of mine, the cave which he had discovered thirty-nine years earlier. This was in the summer of 1956, i.e. almost sixty years ago.

Stefán lamented. *“I don’t want to go there any more“.... “Never” “I just can’t do it”.....*

“It breaks my heart to see the cave, everything in there has been damaged”“I am never going in there again”.

Protesting to his wife and trying to make a stand, Stefán showed more feelings and emotion than I had ever witnessed in a grown-up person before. The ill fate of the cave really hurt him. I was just seven at the time. The tone, the pain and the body language intrigued me and the memory of it has stayed with me ever since.

However, a few days later Stefán took us kids on a horseback riding trip to Fiskivatn, a trout fishing lake on the moor of Arnarvatnsheiði and on the way, he vaguely pointed the whereabouts of the caves out to us. Indeed, they are by no way not easy to pinpoint on the featureless lava field landscape. On the way back I noticed that we had already bypassed the caves. I made Stefán aware of this. He knew of course. He was just trying to keep his distance from the caves, hoping that we wouldn’t notice. However, despite my young age, I was nevertheless wise to him! First I started pleading and begging, please, please Uncle, we want to see the caves, please, but to no avail, he just did not want to turn around. Then, in my utter frustration the almighty Valgerður sprang to my mind, her powers were without boundaries! I pulled myself together and said in as serious a grown-up tone as I could; “I’ll tell Valgerður then”! Stefán, gave me a sharp look, then instantly changed his mind, swung his horse around and took us into the main entrance of the Stefánshellir cave. From there, it has five passages, going in all directions. Stefán had an old back injury and said he could not penetrate into the cave himself, nor did he want to. He just stood there in the entrance twilight and instructed us where to go. *“First, you go there and there and then you’ll see this and that and then you turn back.”* This, I

found it absolutely amazing, he knew the cave by heart ! How could he *know* that?

The third thing about Stefán that made me wonder was how our innocent youthful enthusiasm elevated his own spirits. He relaxed and even started to smile. Straight away, the creation of the cave interested me immensely. How had it all come about, how had the rock formations been made? Stefán, however, was dead unwilling to tell us about the size of the stalagmites; neither did he want to tell us what the cave had looked like in former times. He didn’t even acknowledge our questions about the stalagmites or stalactites, being this big, that wide, this long, or that high?

In spite of Stefán’s reaction, or perhaps even *because* of his reaction, or I don’t know exactly why, I somehow got the impression Stefánshellir had perhaps never been very decorated with “dripstone” formations. At least I always thought Stefánshellir had been nowhere near as magnificent as Víðgelmir, which I visited three years later, in the company of Kalman, Stefán’s son. Matthías Þórðarson’s (16) description, which I first saw in the nineties, also led me astray for some time, since Matthías does not mention any “dripstone” formations at all.

As kids we used candles and two, even three 3 volt battery torches to explore Stefánshellir. Batteries were expensive in those days and we were expected to use them sparingly. We had Sunday afternoons off and often went riding, however, on rainy days, we usually went to visit the caves.

The reason why we preferred Stefánshellir was its intricate structure, its narrow passages and how easy it was to pass through. It was our playground and we even liked to get purposely “lost” in the cave! However, we always somehow managed to find our way out and were quick to get our bearings on the surface, even in foggy weather. It never occurred to me in these times to search for the breakage spots where stalagmites had once stood. In the nineteen-fifties, there were no stalagmites over 3 cm in length present in Stefánshellir and we did not find a single fragment lying on the floor. Stefánshellir was not like the innermost part of Víðgelmir, where the “dripstone”- formations were still scattered around and broken stalagmite fragments littered the floor in places.

In the main passage of Stefánshellir, some dozens of meters down flow from the main entrance, there were several “fat” cave hornitos still standing proud on the floor in the fifties-early sixties, when we kids were playing there. These formations were rather flat lava slabs of different sizes, some quite large, up to 25 inches in diameter. In my memory they were perhaps up to 15- 19- 24 inches high. They did not particularly interest me at that time, they just stood

there eerily, as an inherent part of the cave. It was not until later, long after they had been removed, that I finally understood their formation: They had been formed by frothy lava oozing up under gas pressure from underneath the floor.

The lava formations in Víðgelmir had a profound effect on Matthías Þórðarson (17) in his 1910 report. He found Stefánshellir (16) quite impressive, but in his four page description of the cave, as previously stated, there is no description of “dripstone”-formations at all.

As time went by, I started to get more and more curious and wanting to know, just exactly how decorated Stefánshellir had previously been? No photographs had been made to my knowledge and nobody who knew was around anymore. Except perhaps myself. The talk at the kitchen table in Kalmanstunga in the fifties had never left me. The voices of Stefán and Valgerður and Stefán's feelings, their stories about people removing and damaging the “dripstone” formations and looting the bone-remains. Their statement when similar decorated caves were discovered in the Gullborgarhraun lava-field in 1957: *“It won't take them long to destroy them.”* By the first “them”, they meant whoever visited the caves; with the other “them”, they meant the formations. Only eight years of age I wondered: How *can* they know? They must know!!! It's inevitable!! The caves will get damaged. Sad! Why? For this reason I became more aware of, and read over half a dozen newspaper articles about damage to the Gullborg caves from the late fifties until the mid seventies and became “all” ears when news about damage came on the radio. I visited the Gullborg caves in 1966 and photographed what was left (about half) in the very decorated end of Borgarhellir in 1984. When I checked the same place in 2007 most of the formations were gone so I photo-documented the damage.

The feeling slowly grew in my mind: Stefánshellir must also have been quite decorated. The old couple at Kalmanstunga, Stefán especially, must have had something painful to regret. Even though he did not want to talk about it. Or perhaps that was the reason. Stefán knew what the cave had looked like. It hurt him even to think about it. They both knew what had happened.

Their prophecy of Borgarhellir, the most decorated of the Gullborg still rings a bell: *“It won't take ‘them’ long to destroy them”*; (meaning the formations) they retorted to the radio. They knew, the prophecy came true.

As time went by this (sadly) became an accepted fact in Kalmanstunga. Almost like a law of nature. Sensitive formations in caves with unrestricted access, known to the general public and tourists

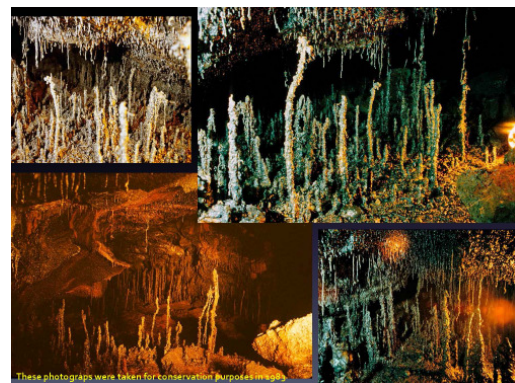
alike, inevitably get to be destroyed. There are no exceptions, as most of us know. Even conscientious experienced cavers cause damage. The old people at Kalmanstunga knew that the whereabouts of sensitive caves should be kept secret. Gating was unthinkable in 1957. It was almost just as unthinkable in 1972 when Mills and Wood wrote their report (20).

Víðgelmir repeatedly “gated itself” with an iceplug. The first known formed in 1917 (16). The last plug to close the cave formed in the early seventies and the ice remained until 1990.

Solid evidence

Tourism has increased exponentially in Iceland. In 1980 there were 50 thousand visitors. Doubling every 10 years from 1980-2000 and tripling every 10 years since then. Last year the number of tourists exceeded 1.3 million. Due to mis- and over-interpreted laws, dating right back to the Settlement of Iceland about public rights of passage, there is free access to land practically everywhere. For the public and tourists alike. Caves included. The tourist-industry takes an indiscriminate advantage of this.

The gps location of over 500 cave entrances was published in 2006. The location of several hundred cave entrances is available on the internet and the webpage has even been translated into Russian! Several tourist firms use the caves for their customers and advertise trips on the internet to unprotected sensitive caves. The sensitive inventory of lava caves has been protected since 1958 (23). Even though decorated caves are *de facto* protected, this is not respected much and visits to such caves are advertised on the internet.



The author of a foreign webpage with excellent photographs from two of the (three) protected caves, and a few very sensitive ones, is currently trying to promote geo-tourism in Iceland. In his ignorance the author is not only sending a totally wrong message,

he is also endangering the very caves and the environment which he is trying to promote. The rare protected gated caves have even been broken into. Unprotected caves with protected dripstone formations (since 1957 (23)) are in grave danger.



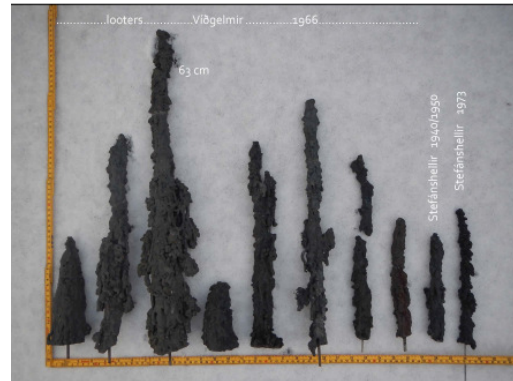
The environmental situation is serious. The final words of the authors of the chapter about Iceland in: *Geoheritage in Europe and its conservation*, (24) 2012, are painfully true, they say: *Total reformation of the environmental assessment practice by planning authorities is inevitable. It is necessary to strengthen the legal framework in order to ensure elaborate and professional practice. The lack of knowledge of the geo-heritage is extensive at administrative levels, and education is desperately needed to raise public awareness of geoconservation.*

Presently, a sort of gold digging fever is prevailing in the reckless and ubiquitous travel industry. The local environmental authorities, especially the Environmental Institute are woefully inadequate and lack the necessary means of enforcement when it comes to the first aspect (i.e. protection) of its duties and the second as well, i.e. a rational utilization of the highly sensitive environment which Iceland boasts of.

Documenting damage is interesting. However, it is not exactly fun; in fact it's quite sad, really. Solid evidence, research and education are the only way to build the foundations of a badly needed political and legislative interaction.

Damage

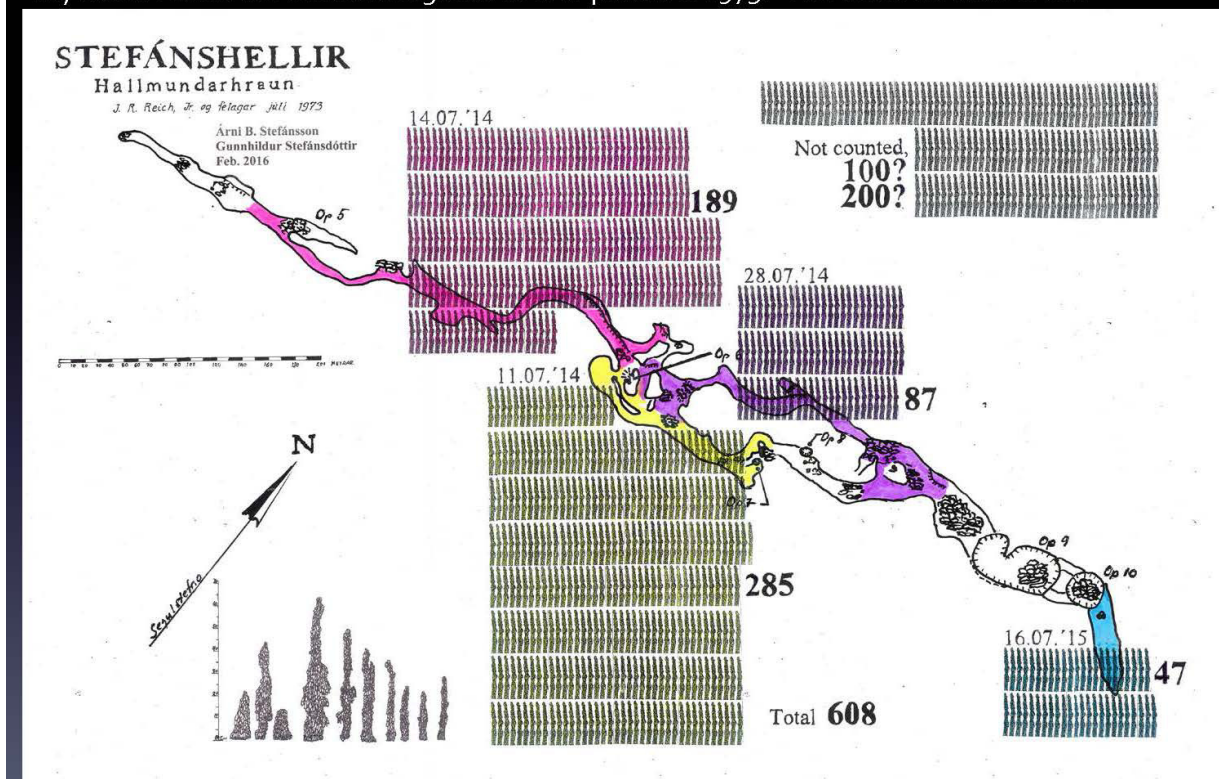
In 2009, we counted the bases of 76 stalagmites in an almost 200 ft long passage, we thought had been the most decorated part of Stefánshellir.



Subsequently our team decided to try to document the damage in Viðgelmir-cave. One of us knew Viðgelmir quite well, after having visited it in 1959 and 1961. It was still quite decorated at that time and still remained vividly in his memory. But even then, there were rumors and reports about serious damage. There was talk in Kalmanstunga in the mid and late fifties, that Viðgelmir should be gated. Viðgelmir had belonged Kalmanstunga until about the end of the 19th century. Stefáns father and his older brother Kristófer were the first to explore Viðgelmir in the company of Matthías Þórðarson (16). The people at Kalmanstunga had always had warm and tender feelings towards the caves. However, after around the turn of the 19th century, they no longer had a saying over what happened at Viðgelmir.

On two separate trips in January and July 2010, with the help of a lot of people, we counted the bases of 1093 broken stalagmites in Viðgelmir. Judging for the fragments littering the floor in places, over nine tenths of these broken stalagmites and stalagmite fragments had been removed. We counted 525 stalagmites over 2 in long in the innermost part of the cave. Of 20 stalagmites which one of us repaired with the help of a fellow caver back in 1995, seven were now broken. The fragments of one had been removed. Viðgelmir was gated in October 1990 (25). The broken repaired stalagmites were a proof of damage after the gating in 1990. That damage took place after the cave was “only” visited by “responsible cavers” and guided groups. On five separate trips in 2014 and 2015 we counted the bases of 608 broken stalagmites in Stefánshellir. If we extrapolate that number to the parts of the cave we did not survey, roughly 750 to over 800

The first eight stalagmites on the lower left were taken from looters in Víðgelmir in 1966
 The ninth was taken in Stefánshellir in the forties and returned 2012
 Jay Reich found the tenth stalagmite in four pieces in 1973. The same as used in the



stalagmites must have been removed from Stefánshellir. Most of the stalagmites were obviously removed early (cf. *"it won't take them long to damage Borgarhellir!"*) i.e. in the nineteen twenties and thirties. But remarkable, beautiful cave hornitos were removed as late as the nineteen sixties. The stalactites, the lava straws have suffered an incredible amount of damage. There are just level breakage spots or very short stubs left in most parts of the cave. A few tubular stalactite straws, faint remnants of former glory, perhaps 2-4 in long, can still be seen where the ceiling is at its highest.

According the the old people in Kalmanstunga, visitors repeatedly broke the lava straws, even from the highest parts of the ceiling with their sticks and torches. (Just like some of us found innocent joy in breaking icicles from roof edges and ledges, when we were kids). The breakage took place in spite of guidance and in spite of the guides, often children asking, even begging them, i.e. the perpetrators to spare the formations. Nevertheless, the extent of the damage to Stefánshellir and how decorated the cave had been, came as quite a surprise to us. Strange since one of us had practically grown up in the cave

and had experienced Stefán's pain. He should have known, but it was not that simple.

Discussion about damage often came up at the kitchen table in Kalmanstunga in 1954-1958, when the old people were still doing the farming. Stefán once said: *"That's the way it is."* Somebody added: *"Everybody knows it."* Silence,... and then someone added: *"Nobody sees it."*



That got to be a saying or a catch phrase in Kalmanstunga for a summer or two. Mostly about things that went wrong, or about things that did not go as well as wished.

*“That’s the way it is,
everybody knows it,
nobody sees it”*

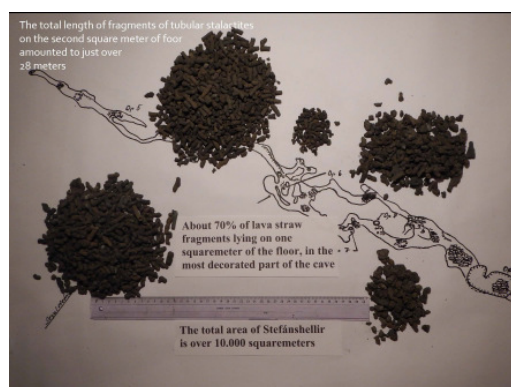
There is a lot of meaning in those words. They became a kind of a singsong:

*“That’s the way it is,
everybody knows it,
nobody sees it... “*

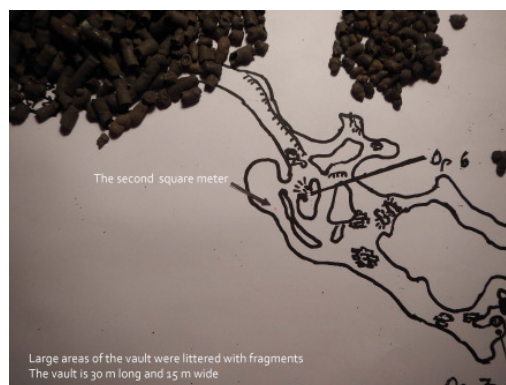
*That’s the way it is, everybody knows it, nobody
seeeeee it.... etc.”*

The thing is, it’s not funny. It’s quite serious, and sad, very sad.

Stefánshellir has been immensely damaged. The damage was by far more extensive and by far more serious than the authors expected.



We were able to recover about 70% of the fragments of the tubular lava stalactites from two square meters which we had selected in two different places. The rest, (about 30%), lay in tight cracks and fissures and was unrecoverable. From one sq. meter (10.76 sq.ft) of floor below the ceiling, in the most decorated part of the cave, we managed to recover 1.516 fragments, whose average length was 0.75 in. The total length of fragments underneath this one sq. meter of ceiling was 93 ft 2 inches and the total weight was 65.25 oz.



In all we documented the removal of 608 stalagmites from Stefánshellir, thereof around twenty dribble spires (27) (dribble cone, lava boil). In our estimate, a total of 750-800 stalagmites decorated Stefánshellir in its prime. Today however, each and every single one of them has been removed.



The fragments of lava straws (tubular lava stalactites) litter large areas in various places to a different extent. A conservative estimate of the total length of fragments littering the cave’s floor is well above over 10 kilometers.

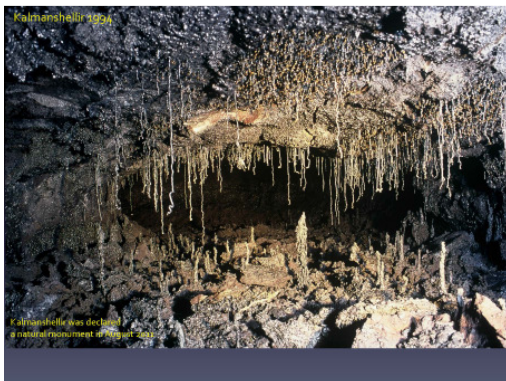
Most of the damage probably took place in the early twenties. Some even earlier, starting shortly after Stefan discovered the cave in 1917. The dribble spires were intact in the early nineteen sixties. They were probably removed in the mid or late sixties.

It is astonishing how thoroughly the job has been done. Every single formation has been removed, broken or otherwise damaged.



Of all lava caves in the world known to the authors, after Víðgelmir, Stefánshellir contained the greatest number of lava stalagmites. Judging from number of broken stalagmite bases, dribble spire bases and the amount of fragments of tubular lava stalactites, helictites and globular stalactites littering the floor, Stefánshellir was profusely decorated in earlier times. With its intricate labyrinthine structure and the amount of stalagmites and stalactites it boasted of, Stefánshellir was probably the most aesthetic large lava cave ever found. Beauty of course is in the eye of the beholder, an inner feeling. Felt or experienced in relation with the observers background, knowledge, well-being and state of mind.

Once the main entrance to Stefánshellir became public knowledge, the cave itself also became accessible to all and simple to enter. With its level floors, Stefánshellir is easy and fun to pass through. Here it stands like a medieval dungeon, proud of a past which no presently living person ever witnessed or will be able to see again. You'll see!

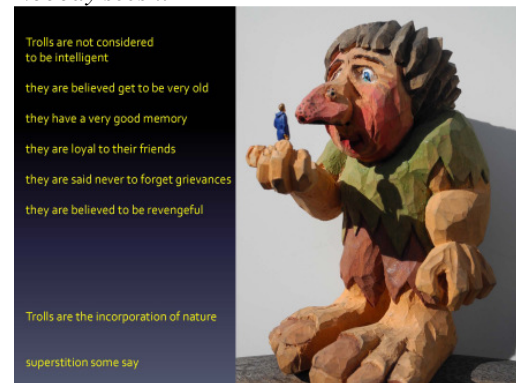


Stefán's pain and his reluctance to visit Stefánshellir in 1956 are more understandable to us now. His unwillingness to talk about the cave; to talk about the love he lost as a young man, his helplessness, it can now easily be comprehended.

*That's the way it is.....
Everybody knows it....
nobody sees it,*

The last verse/line brought a faint smile on Stefán's face at the kitchen table. Recollections rushed through his head. Nobody sees it. Them good old times. His teenage love. Her youthful beauty is just a distant memory now. Vividly painful, her fragile smile vanished within a blink of an eye. No-one else ever admired the splendor which Stefán once did. He took his memory with him to the grave, when he passed away in 1977. Life goes on.

*That's the way it is.....
Everybody knows it....
Nobody sees it*



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P.S. Speculation / back thoughts: The reason Matthías Þórðarson (16) does not mention the formations in Stefánshellir in his 1920 report may be because he was aware of the attention his 1910 report about Víðgelmir (17) had caused. Looting of Víðgelmir probably started right after the article appeared in Eimreiðin magazine. Matthías's description of the formations in Víðgelmir in the 1910 report is just as, or even more inviting, than the description of the formations in Vegamannahellir in the Tíminn newspaper in July 1963 (28). Vegamannahellir was practically cleaned out within seven weeks (29).

References:

1. Þórhallur Vilmundarson & Bjarni Vilhjálmsson (publ.) 1991. Bergbúa þáttur. Page 441-450, in: Harðar saga. Íslensk fornrit XIII. Hið íslenska fornritafélag, Reykjavík 1991.
2. Árni Hjartarson, Náttúrufræðingurinn 84 (1-2), page 27-37, 2014
3. Kristján Sæmundsson 1966. Zwei neue C-14- Datierungen isländischer vulcanausbrüche. Eiszeitalter und Gegenwart 17. 85-86.
4. Halldór Laxnes 1969. Aldur Hellismanna. Tímarit Máls og menningar 30. 365-369.
5. Haukur Jóhannesson 1989. Aldur Hallmundarhrauns í Borgarfirði. Fjölrít Náttúrufræðistofnunar 9. 12 pages.
6. Náttúruvá á Íslandi, Viðlagatrygging Íslands / Háskólaútgáfan 2013, page 361.
7. Íslendinga sögur, band 2, Borgfirðinga sögur, Guðni Jónsson, Íslendingasagnaútgáfan, Prentverk Odds Björnssonar, repr. By Offsetmyndir 1968, page 399-466.
8. Sturlunga saga II, Guðni Jónsson, Íslendingasagnaútgáfan Haukadalsútgáfan. Prentverk Odds Björnssonar, repr. by Litbrá1963, page 282-283.
9. Bjarni Jónsson, Íslenskir Hafnarstúdentar, Bókaútgáfan BS Akureyri 1949.
10. Thorkillus Arngrim, Observation XCIV, De l'algue Sacchaifere, de l'Ofcabiorn & d'une Caverne, d'Islande, Actes de Copenhague, Années 1674, 1675, 1676.
11. Ferðabók Eggerts Ólafssonar og Bjarna Pálssonar, transl. Steindór Steindórsson, Bókaútgáfan Örn og Örlygur hf.-1981, map page 14, text page 137-146.
12. Ebeneser Henderson, Ferðabók, an account of journeys across and lengthways over Iceland in the years 1814 and 1815, Snæbjörn Jónsson & Co. HF. The English Bookshop, Reykjavík 1957, page 349-355.
13. Paul Gaimard, Voyage en Islande et au Groënland, sur la corvette Recherche 1835 and 1836, Libraire de la Société de Géographie rue Hautefeuille 21, Paris 1850.
14. William Preyer and Ferdinand Zirkel, Reise nach Island, F.A. Brockhaus Leipzig 1862, page 96-104.
15. Erich Zugmeyer, Eine Reise durch Island im Jahre 1902, Verlag von Aldolph W. Kunast. Wien, I. Hoher Markt 1, 1903, page 178-186.
16. Matthías Þórðarson, Stefánshellir, Eimreiðin XXVI year, 1920, page 289-291.
17. Mattías Þórðason, Tveir hellar í Hallmundarhrauni, Skírnir 1910, page 332-351.
18. Ísafold, 46, 1909.
19. P.E.Kristian Kálund, Íslenskir Sögustaðir, Örn og Örlygur 1985.
20. M.T. Mills, C. Wood, A preliminary investigation of Víðgelmir lava cave Mid-West Iceland. A case for cave conservation, Shepton Mallet CC Journal Series 5, No 4, autumn 1972.
21. Sigurður Þórarinnsson, Náttúruvernd, Náttúrufræðingurinn, 1 b, 1950, page 1-12.
22. Lög um náttúruvernd, 07.04. 1956.
23. Auglýsing frá Náttúruverndarráði, Lögbirtingablaðið Nr 71, 51. year. 30. August 1958, page 1.
24. Geoheritage in Europe and its conservation, ProGEO 2012, ed. Wimbleton, W.A.P. and Smith-Meyer.
25. Sigurður Sveinn Jónsson and Björn Hróarsson, Opnun Víðgelms, Surtur, ársrit Hellarannsóknafélags Íslands 1991.
26. J. R. Reich jr. Surtshellir, An expedition to the most famous Icelandic cave, Iceland Review 1974, 3-4, page 56-63.
27. Charles V. Larson, An illustrated glossary of lava tube features, Western Speleological Survey Bulletin No 87, 1993.
28. Tíminn (Newspaper) 7. July 1963.
29. Þorleifur Kristófersson, Damage to a newly found cave, Vegamannahellir. A letter to the Nature Conservation Council d. 31.08. 1963.