AVEN ARMAND
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English

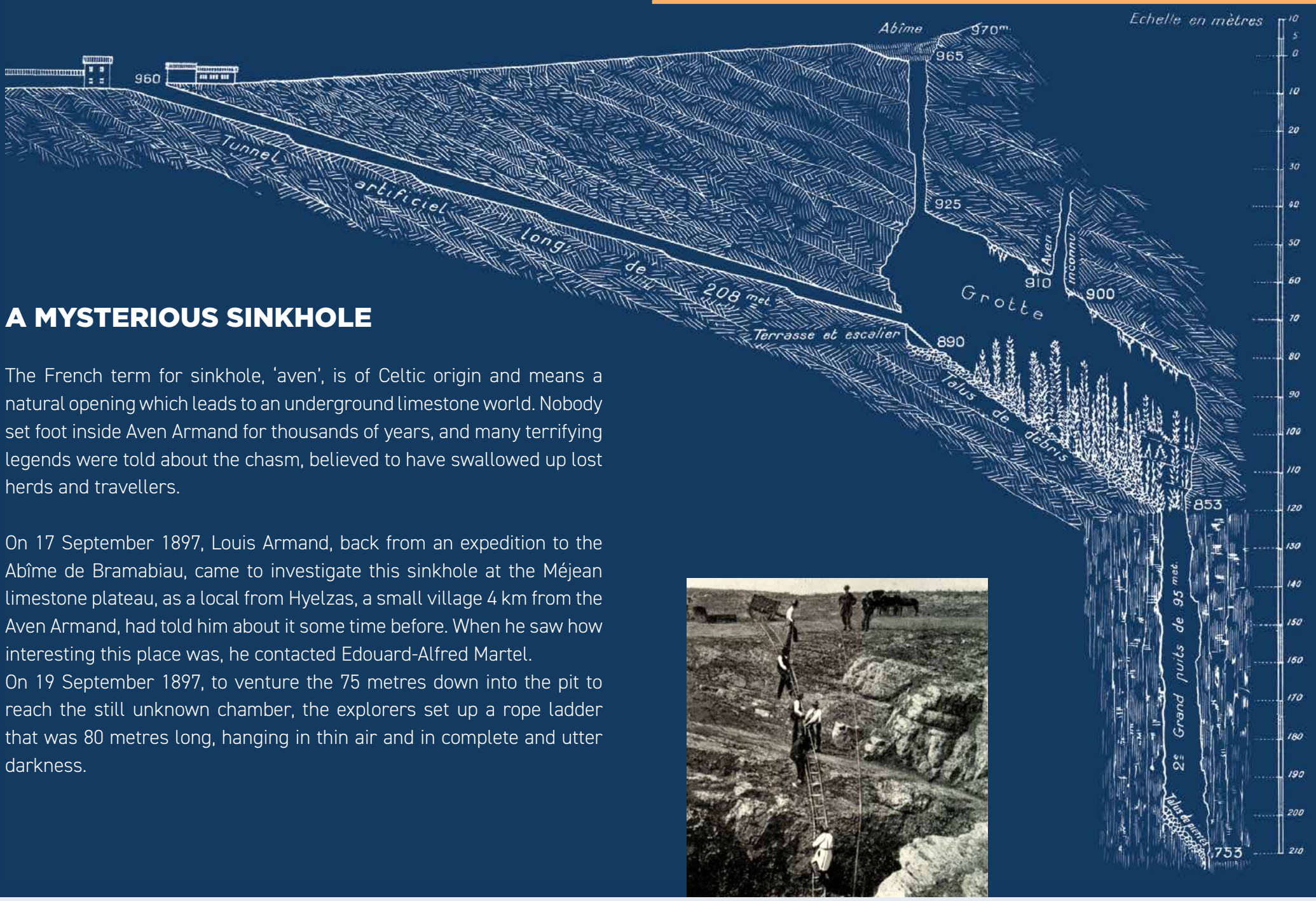
THE DISCOVERY

The Aven Armand cave was discovered on 19 September 1897 by a team of explorers including Louis Armand, a blacksmith and locksmith whose name was given to the cave, Edouard-Alfred Martel, pioneer of modern cave exploration and Armand Viré, a cave biologist.

THE DIMENSIONS

The 'Grande Salle' (Great Hall) of Aven Armand is 110 metres long, 60 metres wide and 45 metres high on average. Its 200,000 m3 volume is big enough to house Notre-Dame Cathedral in Paris.

TREASURE OF EARTH AND TIME



A MYSTERIOUS SINKHOLE

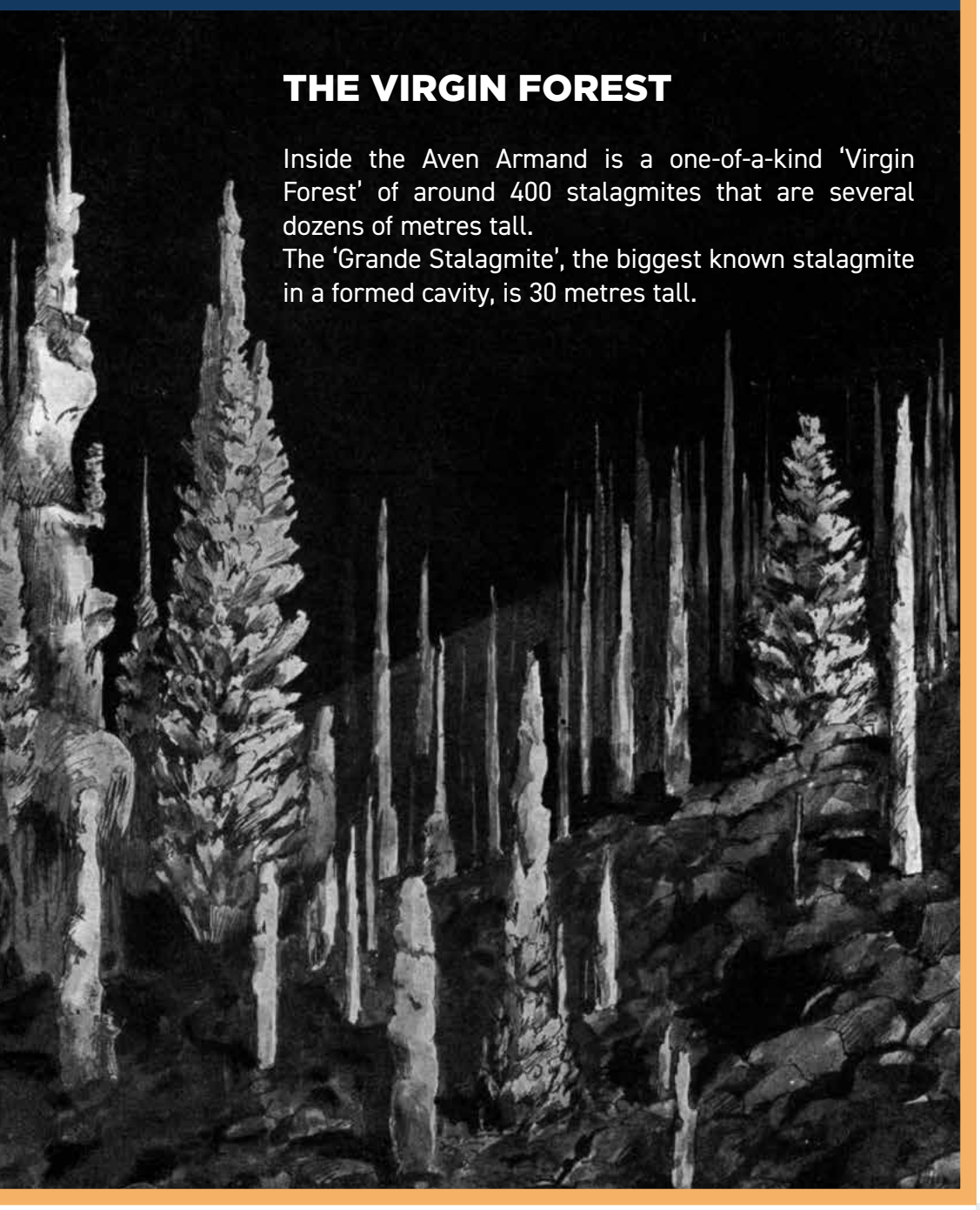
The French term for sinkhole, 'aven', is of Celtic origin and means a natural opening which leads to an underground limestone world. Nobody set foot inside Aven Armand for thousands of years, and many terrifying legends were told about the chasm, believed to have swallowed up lost herds and travellers.

On 17 September 1897, Louis Armand, back from an expedition to the Abîme de Bramabiau, came to investigate this sinkhole at the Méjean limestone plateau, as a local from Hyelzas, a small village 4 km from the Aven Armand, had told him about it some time before. When he saw how interesting this place was, he contacted Edouard-Alfred Martel.
On 19 September 1897, to venture the 75 metres down into the pit to reach the still unknown chamber, the explorers set up a rope ladder that was 80 metres long, hanging in thin air and in complete and utter darkness.

FORMATION OF THE CAVITY

Méjean limestone plateau was formed in the Jurassic era (200 million years ago) by successive deposits of marine sediments. Over millions of years, this limestone was altered by seawater that varied in depth and temperature. The Aven Armand cave was therefore formed in an underwater environment. The limestone inside it dissolved progressively and began to look like sand. 13 million years ago, the Tarn Gorges began to form, therefore separating the Méjean and Sauveterre limestone plateaus definitively. This canyon progressively formed the lower part of the limestone plateau and then the limestone sand was gradually filtered away from what was to become the main chamber of the Aven Armand. This underground chamber was therefore already there before the natural entrance pit known as the 'aven', which formed much later due to a landslide.

A UNIQUE MINERAL FOREST



THE VIRGIN FOREST

Inside the Aven Armand is a one-of-a-kind 'Virgin Forest' of around 400 stalagmites that are several dozens of metres tall.
The 'Grande Stalagmite', the biggest known stalagmite in a formed cavity, is 30 metres tall.

THE CONCRETIONS

Concretions are mineral deposits in a natural underground cavity. There is a wide variety of concretions in the Aven Armand, mainly made from calcite (calcium carbonate) because the water on the surface (rainwater) flows through and dissolves limestone before entering the cave in the form of droplets.

These droplets begin to form vertical concretions from the ceiling of the cavity which progress downwards. These are known as stalactites. The droplets end up on the ground, creating another concretion that is formed upwards, and these are called stalagmites.

Therefore, for each stalactite hanging from the ceiling, there is a stalagmite on the ground.

Calcite deposits can also be seen on the walls of the cave, and these are called draperies.

It is estimated that the concretions in the Aven Armand began to form 700,000 years ago, and they grow by a few centimetres each century.
Due to their appearance, some of the concretions have been named after some well-known shapes: Grands Orgues (organ pipes), Méduses (jellyfish), Dindon (turkey), Chou-Fleur (cauliflower).

FROM DISCOVERY TO OPENING TO THE PUBLIC

FOUNDING THE SOCIÉTÉ DE L'AVEN ARMAND

In 1925, Edouard-Alfred Martel founded the Société de l'Aven Armand, made up of members of the expedition and investors to manage the site and raise funds for its development. Edouard Eiffel, Gustave Eiffel's son was one of the first governing members.

CONCERTS INSIDE THE CAVE

Since 1989, the Aven Armand has been hosting concerts on a special stage overlooking the 'virgin forest'. Spectators come to admire the remarkable acoustics in the cavity, similar to those heard in a cathedral.

DEVELOPMENTS BEFORE OPENING TO THE PUBLIC

A 200-metre-long tunnel was dug out between 1926 and 1927 to make access to the 'Grande Salle' easier. This was widened in 1963 so that a cable car could be installed and visitors could choose an alternative to the 360 steps up and down the tunnel.

The first system of lighting inside the cave, with four colours, was designed in 1926 by Fernand Jacopozzi.

He was also behind the illuminations at the Eiffel Tower and Arc de Triomphe in Paris.

On 11 June 1927, the cavity and the Aven Armand were officially opened to the public. From 1927 to 1933, 140,000 visitors came to the Aven Armand.

Louis Armand

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