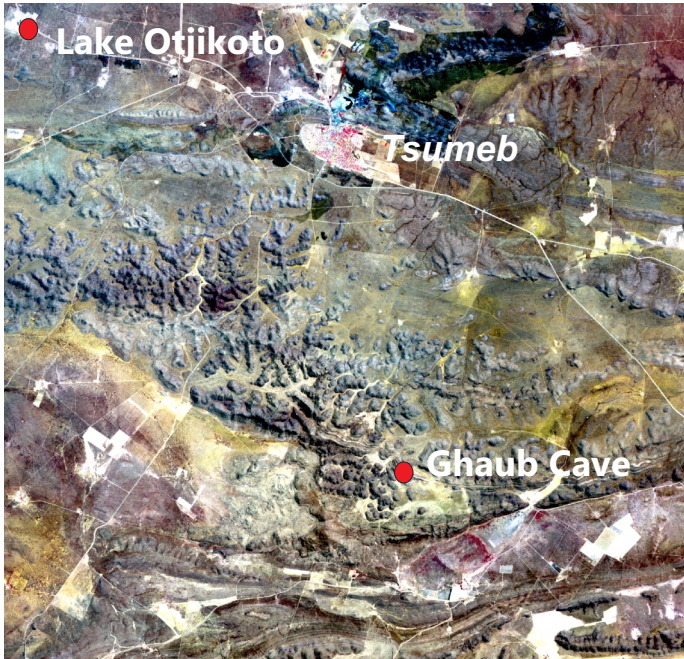




LAKE OTJIKOTO & GHAUB CAVE

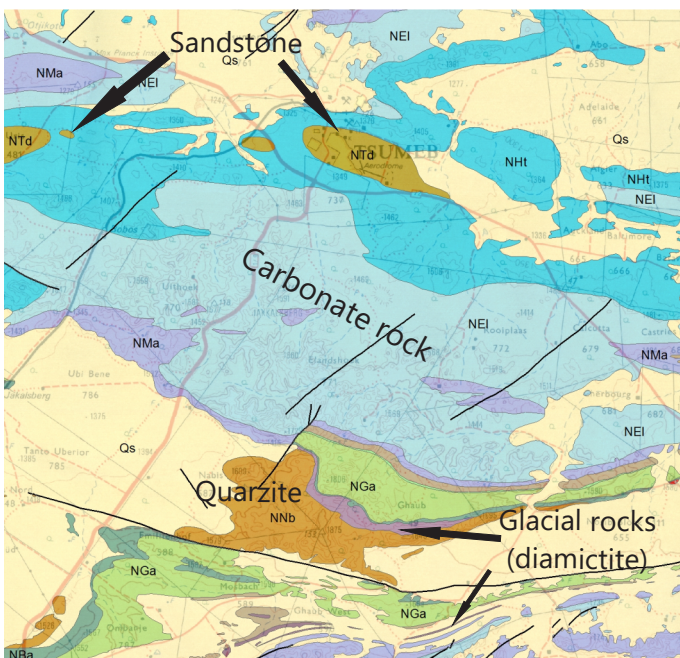
Source: Roadside Geology of Namibia

Meaning “deep water” in the Herero language, Lake Otjikoto is one of the few places in Namibia where groundwater comes to the surface... a sufficiently unusual circumstance to have merited attention not only by the indigenous inhabitants who have frequented the area for centuries, but by the earliest European explorers. Today it is known as the no. 1 destination for the Southern African cave-diving community, host to a couple of endangered species of endemic freshwater fish and the only underwater war museum in the world. Like its counterpart Lake Guinas, some 20 km further to the west, Lake Otjikoto is located within ~650 million years old carbonate rocks of the Damara Belt.



Carbonic acid-rich groundwater percolating on fracture planes caused dissolution of the carbonate rock and the formation of cavities, which - with time - grew into huge, often water-filled caverns. This process (“karstification“) is widespread throughout the Otavi Mountain Land, and spectacular caves (such as the Ghaub Cave) occur at several localities. Eventually the resulting system of underground caverns and tunnels may become unstable and collapse, leaving behind circular sinkholes, that - with their almost vertical sides - look not unlike impact craters. Thus, Lakes Otjikoto and Guinas represent “windows” to the surface of the groundwater flowing northwards from the Otavi Mountain Land. With a maximum diameter of 102 m and a depth of ca. 75 m (Lake Guinas: 140 m Ø; 153 m deep) Lake Otjikoto has a storage capacity of some 400 000 m³. During World War I defeated German troops consigned much of their military equipment to its depths, where some of it remains to this day to form part of the Otjikoto Underwater War Museum.

Satellite image (above) and geological map (below) of the Central Otavi Mountain Land



Mysterious Lake Otjikoto

The 38 m deep and ca. 2.5 km long Ghaub Cave was discovered in 1914 by a missionary. Impressive stalactites and stalagmites, growing at a rate of ca. 1 cm/ 100 years, indicate an age of approximately seven million years. The temperature in this labyrinth of limestone, dolomite and sandstone lies between 25°C and 29°C, although owing to the lack of air circulation it may seem warmer in winter and colder in summer. A subterranean lake, which is part of the complex, is probably connected with other caves of the Otavi Mountain Land, as well as with Lakes Otjikoto and Guinas, by a system of canals, thus creating an enormous underground reservoir. The only living creatures to inhabit this quiet world are numerous bats.

