When Minturno acquired its improved water system, it had already had a most elaborate system of sewers for about a hundred years. So extensive and complete was this sewer system, says Mr. Johnson, that the expedition could survey much of the city from beneath the ground by setting by surveying instruments inside the big sewers. In this way, surveying of Minturno has been completed long before the ruins are all uncovered.

Science News Letter, October 14, 1933

TOOT OCV

World's Biggest Reindeer On Island of Sakhalin

THE WORLD'S largest reindeer live on the island of Sakhalin, which lies between the Sea of Japan and the Sea of Okhotsk off the coast of Siberia. According to Arthur A. Yust, a leading Russian reindeer breeder, the biggest male animal ever found in the Sakhalin herds had a weight of approximately 450 pounds, which is nearly twice the weight of ordinary reindeer. Females of the Sakhalin reindeer average around 280 pounds, but specimens weighing about 360 pounds have been found.

Mr. Yust has made a systematic study of the reindeer that range clear across the vast sub-polar stretches of the U. S. S. R., and has distinguished nine separate varieties or subspecies.

Science News Letter, October 14, 1933

DEFITA-WIETABY

Plato Devised Atlantis Myth, Scholar's New Study Indicates

THE LOST continent of Atlantis! How many times has human imagination been stirred by thoughts of a huge island in the Atlantic Ocean, suddenly engulfed by the sea in a horrible day of earthquake and flood? Was there ever such a place, or was Atlantis a myth?

So much has been written arguing for and against, that Prof. W. A. Heidel, Greek scholar of Wesleyan University in Connecticut, brings up the hackneyed theme apologetically. His justification for mentioning it, he says, is that he has a new suggestion to offer.

Studying Plato's dialogues, where the Atlantis story got its start in writing, Prof. Heidel believes he can discern what was in Plato's thought as he framed the story that was destined to puzzle and intrigue the world. The story of Atlantis, concludes Prof. Heidel, was fiction devised by Plato. Greek pride caused him to put in some details. And there was an air of playful irony in the telling.

The philosopher Plato was teaching how the ideal republic would function in the crisis of war. To make the argument real, he asked his audience to suppose the citizens of the ideal republic to be their venerable ancestors in a very ancient Athens. And then he outlined the drama of primitive Athenians, 9,000 years before, engaged in conflict with people from the great island Atlantis, and as an epilogue he told of sudden disaster which plunged Atlantis into the depths of the sea.

What has misled some scholars into thinking that Plato might be talking about a real country, says Prof. Heidel, was Plato's statement that he got his facts about Atlantis from the Egyptian priests. Egypt, to the ancient world, was the land of the oldest wisdom, the priests were the great authorities. But, Prof. Heidel's interpretation is that Plato attributed Atlantis to the Egyptians merely to give weight to his words and a touch of realism.

"Like accomplished creators of fiction in all ages," says the Professor, "he multiplies the circumstances which give versimilitude to his story."

Moreover, Plato seems to have enjoyed taking a dig at the Egyptian wisdom and antiquity. For he proudly makes his primitive Athens a thousand years older than an Egyptian town in the narrative. And as he tells of the struggles between the Greeks and the conquering armies from Atlantis, he says that Greece defeated the invaders and liberated all the inhabitants of Europe and Africa.

Since Plato is the only writer of antiquity who refers to Atlantis, the solution of the Atlantis problem is most likely to be found in his direction, Prof. Heidel believes. As in the children's game of hide-and-seek, the seeker would seem to me "warm" when investigating Greek history and geography, in order to see what ideas were borrowed and used to make a "lost continent." And, considering that Plato had no modern knowledge of the world's geologic history, and could scarcely have held theories of land bridges in the Mesozic era, the Atlantis seekers who approach the problem geologically are "cold"—so far as their chances of explaining Plato's Atlantis are concerned.

Science News Letter, October 14, 1933

ANIMAL PSYCHOLOGY

Animals Know Phonograph Voices of Own Species

"Is MASTER'S Voice" is not just a bit of clever advertising; animals do recognize the voices of their own and other species when played on a phonograph record. So reports Prof. Bastian Schmid of Munich in the German scientific publication *Die Umschau*.

Prof. Schmid tried a phonograph record of a mewing cat on a fox terrior that hated cats. As soon as he heard the voice of his pet antipathy he tore around the room hunting for it, and when he found the phonograph horn he tried to dive into it. The same record was then tried on a cat, which listened for a moment and then responded with the same melancholy meowling.

Another record, of a hen cackling

just after she had laid an egg, was tried on a farmyard rooster. He responded immediately with the same egotistic cackling that a henyard sultan sets up when one of his wives has boosted her laying record by one unit.

Prof. Schmid also tried a record of a watchdog's barking on the dog himself. After a moment of astonishment the dog began to bark in reply, but in a different tone. A young ape, hearing a record of his own voice, also treated it as the voice of a stranger. Prof. Schmid is inclined to believe that animals will recognize their own voices as belonging to their own species, but not as belonging to themselves.

Science News Letter, October 14, 1933