



**NUCLEAR ENERGY PLANT**—This is a preview around which industrial life is expected to center in the closing part of the Twentieth Century. In the foreground is a pile building with processing structure behind it and Power Unit at the rear. It was displayed by The Kellex Corporation at the Atomic Energy Exhibit in New York.

## MEDICINE

## Rh Factor Clue To Race

Basques are believed to be an almost pure representative race of ancient Europe. Discovery that they are predominantly Rh negative supports this theory.

➤ **TWO MYSTERIES** of science may have been partly solved by a blood study of Europe's most puzzling people, the Basques of northern Spain, evidence presented to the International Society of Hematology, meeting in Buffalo, indicated.

The mysteries are:

1. Where did the Basques, who have a strange language and culture, come from?
2. Will European races continue to have "incompatible" Rh positive and Rh negative blood?

Basques may be the purest descendants of a race that lived in Europe before the invasion of the Mongoloid hordes from Asia. Blood study of 400 Basques has revealed that they are nearly a pure Rh negative group, Drs. A. E. Mourant, Elizabeth W. Ikin and J. M. Chalmer of the Lister Institute, London, told the Society. Their study was based on work done by Prof. J. B. S. Haldane of England and Dr. A. S. Wiener, New York.

European racial groups have an estimated mixture of 60% Rh positive genes and 40% Rh negative. This division is believed to have occurred when Rh negative European peoples were invaded from Asia by an Rh positive race. Thus, the Rh negative Basques have probably inhabited

Europe longer than the mixed or positive Rh peoples.

The Rh factor is involved in a disease producing hereditary anemia in the newborn. Incompatibility of the blood groups between an Rh negative mother and an Rh positive father produces an Rh positive baby. Just as antibodies form in the blood to kill disease germs, so the mother's antibodies injure the blood cells of the baby, often resulting in death.

This Rh complication is likely to continue in European races, the British scientists predicted. Neither the Rh positive nor the Rh negative genes have been wiped out in more than 10,000 years of mixing, their studies indicated.

Over a much longer period of time and by a very slow process, they theorized, it is possible that the rare Rh negative may some time disappear.

The Basques are a group of some 800,000 people living in the region of the western Pyrenees mountains, which form the boundary between Spain and France. Scientists have been unable to explain the origin of this distinctive and rather secluded group. It has been suggested that the mystery of the origin of the Basques might never be solved.

Now, it appears that modern discoveries about human blood may offer some clues concerning the Basques which the people and their unique culture have not been able to provide.

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## ICHTHYOLOGY

## 40,000 Kinds of Fish Are Known to Exist

➤ **ALMOST ANY** "fish story" may be true, because there are more than 40,000 different kinds of fishes in the world.

Fishes, from the Philippine goby, which is less than a third of an inch long and weighs less than a hundredth of an ounce, to the whale shark, specimens of which weigh more than 20 tons, are described by Dr. Leonard P. Schultz, Smithsonian Institution curator of fishes, and Mrs. Edith M. Stern in the new book, **THE WAYS OF FISHES**.

There are more fishes than any other backboneed animals in existence, and more varieties of fishes than all varieties of mammals, birds, reptiles, or amphibians.

"Not all," says Dr. Schultz, "are creatures that can exist only in water and move only by swimming. Some walk, some fly, some breath air, some water."

"There are fishes with eyes divided somewhat like the bifocal lenses of spectacles—the upper part for vision in air, the lower for vision in water. There are fishes that burrow like moles, hibernate like bears, fight like tigers.

"Some are placid, others nervous and easily irritated. Among them are the timid and fearless, the lazy and energetic, the mild and bloodthirsty."

There are many poisonous fishes but they are not aggressive and only use their poison in self defense. The stingray, a close relative of the sharks, is one of the most poisonous. Some of these weigh nearly half a ton and have poison barbs more than a foot long.

Most bloodthirsty fish is the piranha of the Amazon and Orinoco. They are quite capable of nipping a finger or toe off a swimmer with their teeth like the blades of pruning shears.

The largest sharks are entirely harmless, but the great white shark and the hammerhead are extremely dangerous when they are excited by blood. They have a blood-curdling habit of slowly cruising around their victim a few times before suddenly going at him.

Some fish hibernate in ice. Since a freshwater fish freezes at a temperature a little lower than the freezing point of fresh water, the fish can be in a block of ice and still not frozen.

Lungfishes can breathe in air as well as water. Dr. Schultz explains that they may be on their way to evolving into land animals.

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