science news

OF THE WEEK

ANTHROPOLOGY

Out of the jungle mists

A small Indian tribe found in the Colombian jungle may be the lost Yuri

A bizarre chain of events involving a search for a lost hunter, killings in the depths of the Amazon jungle, hostages and unearthed graves has resulted in the discovery of one of the world's most isolated groups. It may be an Indian tribe thought extinct for half a century or a completely unknown group, never before seen by modern man.

Anthropologists are equally excited by either possibility.

Last December, a skin trader named Julián Gil set out from the little town of La Pedrera in southeastern Colombia, on a westward trek along the Bernardo, a tributary of the Caquetá River so obscure that it is missing from most maps of Colombia.

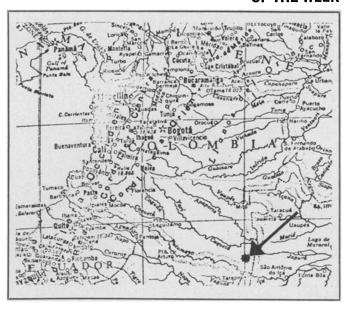
Most likely in search of better hunting grounds, Gil and two Indian guides continued along the Bernardo for some distance, then branched off overland to travel south. After several days journey, the party stumbled onto a crude village, the existence of which came as a surprise even to the guides.

Gil sent the guides back, but that was the last anyone has heard from him.

Since local rumors claimed that Julián had been killed, an expedition of about 30 persons was organized by the Colombian Navy. It included at least nine armed men and Julian's brother, Efraín Gil, but no scientists.

Had the party included an anthropologist, says Dr. Robert L. Carneiro of the American Museum of Natural History, violence might have been avoided and permanent contact made with the tribe.

The party found the village, occupied round, dirt-floored, conical-roofed village house and sent out a series of



Isolated village is in southeastern Colombia.

armed sorties which resulted in the capture of many Indians.

In the house, Efrain Gil found three burial mounds. Thinking to find his brother, he dug up the freshest one despite the protests of the villagers. He found the remains not of his brother but of an Indian. The only signs of his brother were his belt, his knife and a necklace made from the buttons of his shirt found with several of the Indians.

As he started back the next day with six hostages, the party was attacked, according to expedition accounts. The shooting that followed left six Indians dead.

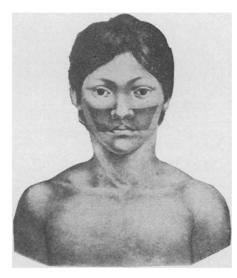
Along the route, the expedition passed two gardens, where felled vegetation showed evidence that it had been cut with stone tools.

The hostages were returned to La Pedrera. Attempts at communication failed. Indians from different parts of Amazonia who spoke a total of 30 languages among them were brought in, but the hostages' language was unknown to any of them.

In July a French journalist-anthropologist, Yves-Guy Bergès, returned the hostages to their original home, hoping to establish contact with other members of the tribe. Near the village, Bergès found several open trails and a field planted with bananas, bitter manioc and peach-palm trees. Inside the house was a wooden drum coarsely carved from a tree trunk. The house was abandoned, and since the former hostages would lead him no further, he left them and returned, bringing back a stone axhead.

The main question of scientific interest is, who are these Indians?

Nineteenth century accounts indicate



A Yuri: From 19th-century woodcut.

that a tribe called the Yuri once inhabited the same general area in which the village was found. No one has had any word of their existence for at least 50 years, and they were assumed to be extinct.

"On the basis of the evidence," says Dr. Carneiro, who has been keeping in touch with the situation, "there is a good chance that the Indians are in fact the Yuri." He bases his conclusion on the location, the unknown language, the level of agriculture and evidence-stone axes, lack of familiarity with photographs and the like-of total isolation from civilization.

Only three short word lists of the Yuri language have ever been obtained; none of the words appeared to be related to any other language. "This," says

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Dr. Carneiro, "would explain why none of the Indians that spoke to these hostages were able to understand anything

of their language."

Two of the word lists were gathered by Carl Fredrich Phil. von Martius, traveler and ethnologist, who in 1867 published a description of the Yuri Indians as he had seen them in the 1820's. According to Martius, the Yuri had tattooing on their faces, as had the hostages. He described them as an agricultural group of Indians, living a sedentary and peaceful life in coneshaped huts like the one Gil and Bergès described.

Martius and 19th-century South American missionaries reported the Yuri living over an extensive area between the Caquetá and Putumayo Rivers, and especially at the headwaters of the Puré. The account from Gil and Bergès places the village somewhere between La Pedrera on the Caquetá and Terepacá on the Putumayo.

One question of special interest is whether the Indians are in fact using stone axes. "Another stone-ax-using group was discovered in South America last year (SN: 1/25, p. 94)," says Dr. Carneiro, "but they are really very far and few between."

Although Dr. Carneiro believes the most likely explanation for the Indians is that they are remnants of the Yuri, Dr. Gerardo Reichel-Dolmatoff of the Colombian Institute of Anthropology suggests another possibility. "Some of these Indians are probably the descendants of refugees from the notorious rubber camps of the early decades of this century (SN: 3/29, p. 314), while others may be remnants of isolated tribes who formerly lived along the major rivers." He feels they might be Yuri or Huitoto or Bora, but Dr. Carneiro says the latter two groups live farther to the west and their languages are well known.

The new tribe may be a group that has never been documented, says Dr. Carneiro. "But on the basis of the present evidence there is a fair chance that they are Yuri."

"In either case," Dr. Carneiro notes, "this would be a very good tribe to to study, because they are probably in as nearly an aboriginal condition as can be found today."

When such studies might be done is uncertain. Not only is the trip extremely difficult—Efrain Gil's account stresses swamps they went through up to their necks—but the battle and shootings will have left possibly irreparable scars.

"The problem," says Dr. Carneiro, "is that although the hostages were released unharmed, still it's a rather ticklish situation and I'm not sure that any anthropologist is going to want to go right away to make extended studies."

MOONROCKS RELEASED

Controversy continues



Glassy moonrock under a microscope.

The great quarantine is almost ended. The priceless moonrocks, ensconced in the Lunar Receiving Laboratory ever since Apollo 11 brought them to earth in July, have revealed no alien organisms, nor even evidence that there ever was life on the moon. The LRL scientists are leaving for their home laboratories, as more than 140 other researchers around the world prepare for their own Houston pilgrimages to bring away bits of moonrock for the really exhaustive study that is to come.

Much has been learned about the rocks in their six weeks at the LRLso much attention from so many top minds could hardly fail to be fruitfulbut the key message for the outside researchers, and for future Apollo missions, is: The big mysteries still remain.

With each new discovery, theories and counter-theories spring up, in almost the same profusion that existed before the rocks arrived, about how the moon was born, how it is related to the earth, whether it had a volcanic past and whether it has a volcanic present. The surprising abundance of glassy material on the lunar surface (SN: 8/2, p. 95), for example, makes it almost a certainty that great heat was present to transform the moon's silicate rock; but there is still room for the scientists to fight about whether the heat came from within the moon or from impacting meteorites.

And even if there was volcanism in the early moon, where did it come from? One possibility is that the moon was formed, like the earth, as a molten ball. Researchers at LRL, however, have found sufficient quantities of uranium, thorium and unstable isotopes of other elements in the moonrocks to indicate that radioactivity alone might have created enough heat to trigger vol-

The density of the samples has been found to be slightly greater than the mean density of the moon, yet even this simple datum has spurred contradictory ideas.

One is that the maria, or lunar seas, might be dense enough to account for the mass concentration effect that warped the orbits of some lunar spacecraft (SN: 8/2, p. 95).

On the other side are researchers who point out the Mare Tranquilitatis, from which the dense samples were taken, is not one of the maria over which a mascon effect has been observed.

This suggests that the denser samples may be a localized phenomenon rather that representative of maria in general or even of the whole of Tranquilitatis, a notion that could be verified when Apollo 12 brings back samples from Oceanus Procellarum, a mare on the far side of the moon.

While some scientists debate the results from Apollo 11, others are already planning for future missions. One is Dr. Gary Latham of Lamont-Doherty Geological Observatory in Palisades, N.Y., who wants nothing less than deliberately to crash the Apollo lunar module into the moon.

Dr. Latham and his colleagues, including Dr. Maurice Ewing, also of Lamont, have been operating a transmitter-equipped passive seismometer left on the moon by Apollo 11, to detect lunar tremors, either from internal activity or from meteorite impacts. With the astronauts still on their way back to earth, the device reported three distinct, sharp seismic events. But since such events have not recurred, the scientists tend to blame them on electronic bugs.

On Aug. 27, the seismometer apparently burned out at last in the lunar heat. During the preceding month, however, it had reported hundreds of tiny, strange tremors that have set the researchers wondering. "None look like the ones we observed on earth," Dr. Latham says. The point, however, is that they are so small. Either there were no significant tremors or impacts in that time, suggests Dr. Latham, or the surface layer of the moon is so fractured and fragmented that signals are not well carried through it.

Unfortunately, because of the size of the tremors, the seismometer was only able to report signals down through about one mile of the moon's crust. So