

SPACE

Self-Control in Soyuz 3

As Russia's newest cosmonaut, Colonel Georgy Beregovoy, piloted his spacecraft through a series of seemingly routine maneuvers last week, nervous U.S. space officials began to relax. The flight of Soyuz 3 did not suggest that the Soviets had moved ahead in the race to the moon. Indeed, there was growing suspicion that Soyuz had not even achieved its own limited objectives.

Twice during the mission, Beregovoy guided Soyuz 3 close to unmanned Soyuz 2 in a maneuver that the Russians described as *priblezhenie*, or approach. Western experts were at a loss to explain why the two ships apparently never came closer than 650 ft. Soyuz (which means "union" in Russian) seemed designed for docking, and a Pravda article earlier in the week had noted that the purpose of the mission was "to perfect docking techniques in orbit." Yet without any further attempt to link the two craft, Soyuz 2 was returned to earth and safely recovered. Beregovoy was left alone in space.

Another Voice? Not to be outdone by his U.S. counterparts, Beregovoy presented a humorless version of Apollo 7's Walt, Wally and Donn Show. Live television from Soyuz showed him recording data on a pad and giving a thumbs-up gesture as he viewed the earth through a spacecraft window. Beregovoy also panned the TV camera around the Soyuz cabin, thus confirming reports that it was roomy enough to hold at least a few more cosmonauts.

In an oblique reference to the irritability demonstrated by the Apollo astronauts, Tass reported that Beregovoy showed "self-control" during his flight



COSMONAUT BEREGOVY
More to come?



RUINS OF CROESUS' REFINERY AT SARDIS, TURKEY
Chapters instead of footnotes.

and had said that he would carry out all the orders of his ground controllers "with pleasure." But the stolid cosmonaut lacked the snappy spontaneity of a Wally Schirra. When Soyuz 3 passed over Southeast Asia, Beregovoy radioed a greeting to the "courageous Vietnamese people" and sent his praise for their "heroic struggle against the American aggressors."

By mid-week, the Russians announced that Soyuz 3 had "completed the full volume of its scientific, engineering and medical experiments." But the spacecraft remained in orbit, and hints in the Soviet press suggested to Western experts that another manned ship might be launched to rendezvous and dock with Soyuz 3. But after only four days in space, and apparently without making any significant new technical breakthroughs, Cosmonaut Beregovoy brought Soyuz 3 safely back to earth, landing it by parachute on the snowy steppes of Kazakhstan.

Satisfied that the Russians had not taken a great leap forward in manned spaceflight, U.S. spacemen moved ahead with their own plans to assault the moon. As technicians continued their inch-by-inch inspection of the Apollo 7 and sifted through its telemetered data, NASA officials promised that they would decide before mid-November whether to send Apollo 8 around the moon in December.

ARCHAEOLOGY

Digging for History

Archaeologists have learned to be satisfied if their patient scraping unearths the wherewithal for even a footnote in the slowly growing record of man's early history. But recent digs have turned up enough material to flesh out two rich chapters in that saga. At Sardis, in western Turkey, a Harvard-Cornell-

N.Y.U. group has uncovered what is believed to be one of King Croesus' fabled gold refineries. In the barren desert of southeastern Iran, archaeologists from Harvard's Peabody Museum have found evidence of an extinct Middle Eastern city that was conquered by Alexander the Great during the latter part of its 5,500-year existence.

Bowls of Croesus. The search for Croesus' refinery began when Andrew Ramage, one of the Harvardmen on the expedition, noticed some oddly similar circular depressions in a clay floor near the site of a shrine built to Cybele, the goddess who protected ores and metals. Not far off was the Pactolus Torrent, which once was noted for its gold-rich sands. Moreover, slag similar to that produced in metal smelting rimmed the edges of the depressions. Ramage and his colleagues soon realized that they had stumbled on an ore refinery.

Careful digging revealed that the circular depressions were cupels, or metal-refining bowls. Unearthed with them were four furnaces, remnants of bellows, tiny bits of gold and gold alloys, and pottery fragments from the time (570-547 B.C.) when Croesus ruled the Lydian Empire in what is now western Turkey.

Uncommon Elephants. Some 1,700 miles and 50 centuries removed from the Sardis dig, the Peabody group discovered a far different trove of relics and artifacts. At the base of the mound they are excavating lie the remains of a neolithic community that thrived as early as 5500 B.C. The find upsets earlier theories, which held that neolithic man had never ventured into such inhospitable surroundings. And unlike other neolithic settlements, the Peabody dig is surrounded by remnants of a mammoth wall, 7 ft. high and 20 ft. thick. Be-