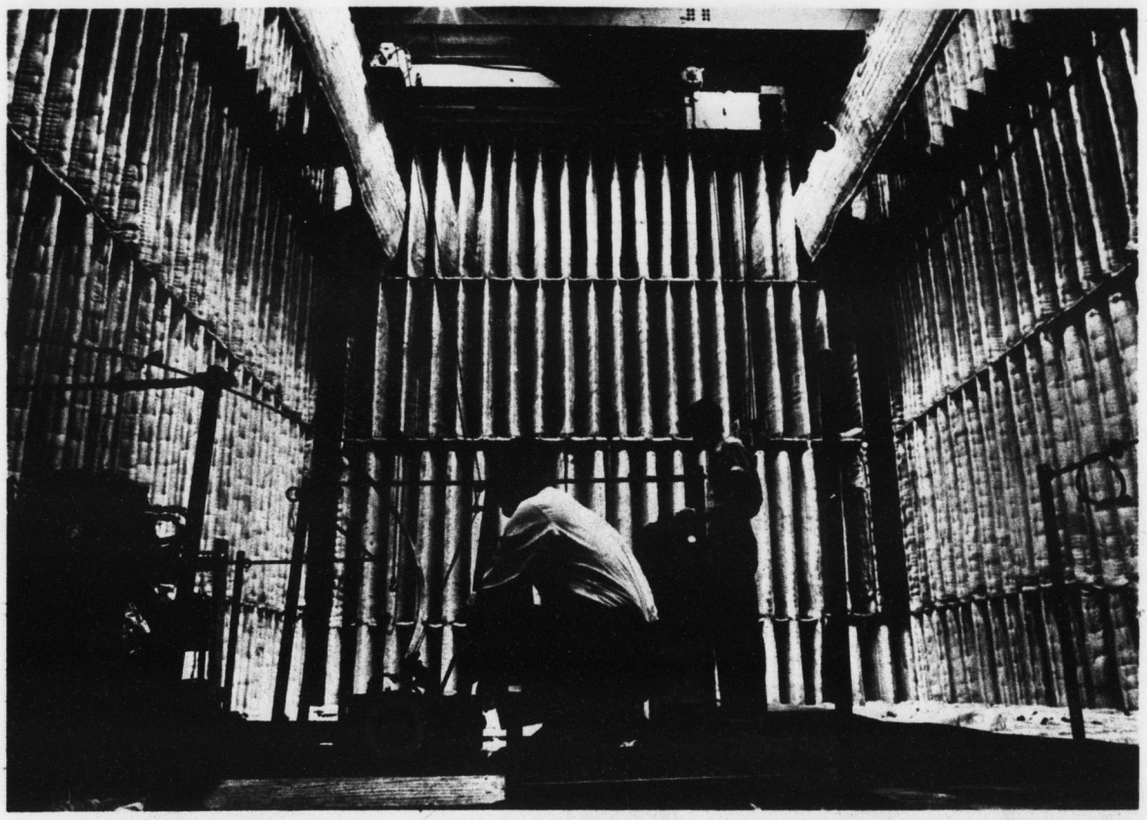
arines

less room in the laboratory, where a voice seems to die at the speaker's lip. The high walls and ceiling and the floor have long, deep pockets, or baffles, which are padded with fiberglass. In these pockets, echoes die and sound of machines can be measured and analyzed without distortions.

When engineers think they have quieted a piece of machinery, they install it aboard the Turbot, a submarine docked on the Severn River, which serves as a testing ground. "It's the proof of our particular kind of pudding," says Mr. Argiro. "An engine may sound quiet enough after we've worked on it, but we don't know until we try it how it's going to sound when it's operating as part of the entire sub system. It may even develop new noises. . . ."

If so, that's a new problem for engineers trying to keep our submarines quiet.



L. J. Argiro (foreground), electronic engineer, and J. K. Grapes, mechanical engineer, prepare instruments for a sound experiment in a laboratory room lined with baffles and covered with fiberglass to reduce echoes.

, sound-testing instruments are set up to tell what the e under conditions similar to those at sea. Left to right: udinyak, and Mr. Longley, who is about to go below.

Miss Anne Slaven, physicist in the sound lab, removes some tape recordings which are to be run through a frequency analyzer. Thousands of sounds are on the magnetic recordings in the background.

Star Photos by Elwood Baker