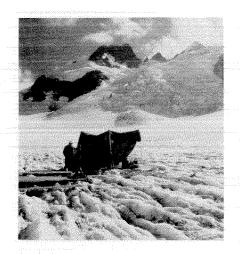
## ENGINEERING AND SCIENCE

## IN THIS ISSUE



ON OUR COVER—Dr. James Savage, one of the seven Caltech geologists who set up a research project last summer on the Blue Glacier in northwestern Washington. Dr. Savage is working at the bore hole site near the middle of the glacier, where pipe is driven down through the ice to check the glacier's flow.

The Blue Glacier Project is part of the IGY program, and is under the direction of Robert P. Sharp, professor of geology and chairman of the division of geological sciences. You'll find some of his crew and some of their activities pictured on pages 18 and 19.

THEODORE M. GREENE, professor of the humanities at Scripps College, visited the Caltech campus from December 3-5 as a guest of the YMCA. An author and lecturer in the philosophy of religion, art and education, Dr. Greene spent much of his time here in discussions with students, but also gave some formal talks—like the provocative sample on page 13.

## PICTURE CREDITS

Cover	Rabert P. Sharp
pps. 18, 19	Robert P. Sharp
p. 22	U.S. Air Farce
р. 23	Sacramenta Peak Observatory
p. 28	Graphic Arts, Caltech

JANUARY, 1958 **VOLUME XXI** NUMBER 4 PUBLISHED AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY CONTENTS 3 In This Issue Major Philosophical Issues of the Modern Age 13 A consideration of some of the things that trouble us most in our most thoughtful moments today by Theodore M. Greene 18 Blue Glacier Project Caltech starts a comprehensive study of a glacier in the shadow of Mount Olympus 20 The First Shots Into Interplanetary Space A research project that may pave the way for direct experimentation with the planets and their satellites by Fritz Zwicky 28 An Anniversary Caltech chemists celebrate the 40th anniversary of the publication of the first American papers on x-ray crystallography 32 The Month at Caltech 36 Alumni News 40 Personals STAFF Editor and Business Manager..... Edward Hutchings, Jr. Student News......Brad Efron '60

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