

# ENGINEERING AND SCIENCE

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## NEW CONSTRUCTION ON CAMPUS

**O**NE CREW of the contractor Ray Gerhart has been eating in a little lunch stand at the corner of California and Lake streets for the last four years. Since construction was started on the receiving warehouse in 1944, there has been enough work on campus to keep the crew busy almost steadily.

The current project of Gerhart is an underground laboratory for Biology. This construction, now a hole 100 feet wide, 100 feet long, and 12 feet deep, near the corner of Wilson and San Pasqual streets, has eliminated a large part of the Biology parking lot. However, when the job is completed, the concrete roof slab will be finished near ground level, and the parking space will be back to its original proportions.

No new projects are planned for the additional space

this basement will provide. Laboratory animals—rats, mice, and rabbits—will be moved from their present quarters in Kerckhoff basement to the new addition. An extensive ventilating system with both intake and exhaust blowers will provide an environment in which the animals can live and reproduce most favorably. Two temperature levels will be maintained — rabbits prefer cool living quarters, while rats and mice are happiest at normal room temperature. In addition, this push-pull fan system will maintain a slight pressure differential between Kerckhoff basement and the new laboratory, thus assuring that no air-borne infestations from animal litter can enter the main building. With both air-tight doors between Kerckhoff and the laboratory open, air will be drawn out of Kerckhoff.

Moving the animals out of the Kerckhoff basement will release space for the Biology shops and stock room. The room now filled with animal cages, originally designed for a storeroom, will be so used, while the present storeroom will provide added shop space.

More than two years of planning have gone into this project, on which work commenced last December. The construction is part of a long-range plan that will include an "L"-shaped addition to Unit 1 of Kerckhoff—the west half of the present laboratory—proceeding north and west. Planned to be a joint effort of Biology and Chemistry, this wing will house biochemistry and immunology laboratories. The roof of the animal quarters will form a court or terrace with Kerckhoff and the Biochemistry "L" on three sides and entrance from the west. A subway exit to the parking lot will eventually connect the animal laboratory and the projected Biochemistry addition. Footings for the walls of the new laboratory have been set sufficiently deep to permit construction of a sub-basement in the future wing without undermining present construction.

**UPPER LEFT:** Excavation for the new Biology basement annex from the top of Kerckhoff Laboratory. The parking lot entrance ramp can be seen outside the forms at right center.

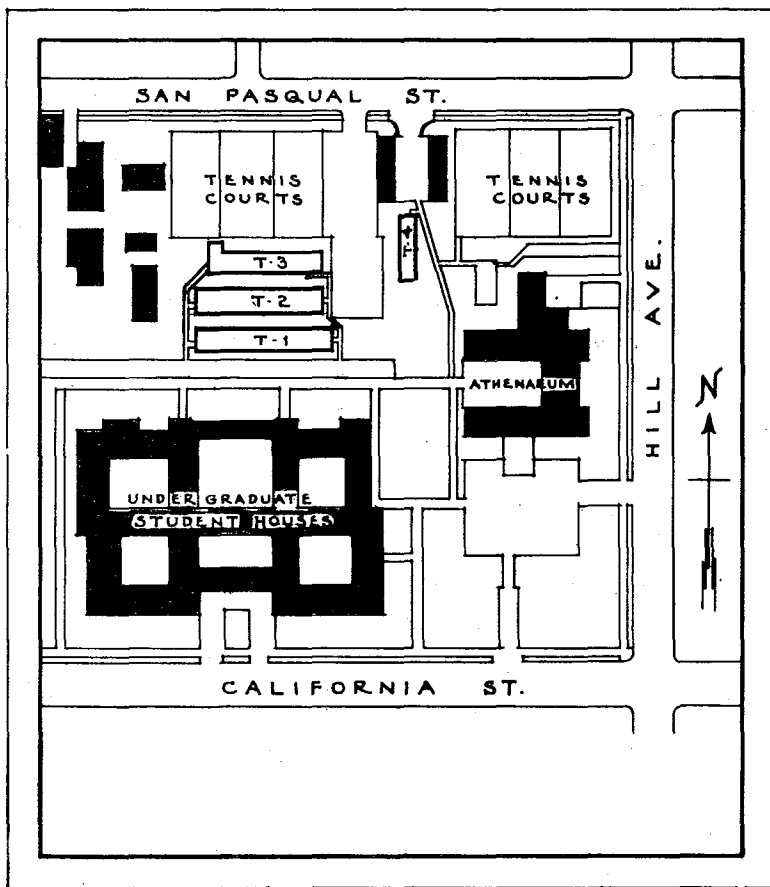
**UPPER RIGHT:** Temporary buildings T-1 and T-2 from the campus paint shop. Fleming House is on the right. T-3 is to the left of picture.

**CENTER LEFT:** Office of Dr. J. C. Shrader in the Health Center. Nurses Mrs. Jewell Johnson and Miss Elizabeth McMichael are recording a patient's troubles.

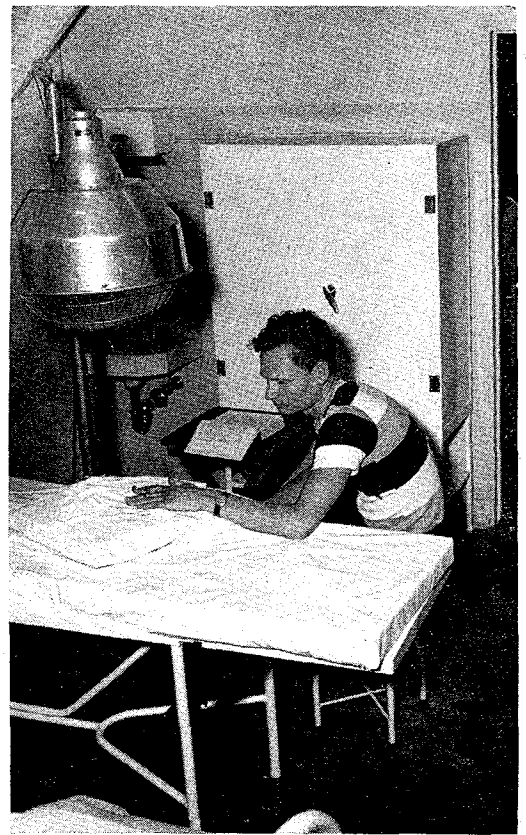
**CENTER RIGHT:** The new Chemical Engineering machine shop in T-3. Not finished when the picture was taken, it will be in operation this month.

**LOWER LEFT:** T-1, looking northwest from the student houses. This building provides room for the Athletic Office, and laboratories for soil mechanics, sanitary and structural engineering.

**LOWER RIGHT:** Interior of the expanded Athletic Office. Mrs. Miriam Coyle and Miss Louise McGee discuss the golf season with Throop Club President Bob Benton.



Plot plan of the east end of the Tech campus, showing the new temporary buildings.



Sophomore Dwight Schroeder bakes a cut finger under the sun lamp in the Health Center.

Of great importance to other overcrowded departments on campus are four newly erected buildings supplied by the Government from the Santa Ana Army Air Base. These temporary quarters, made available to C.I.T. through the act of Congress providing educational facilities for veterans, are shown on page 4. T-1 houses an expanded athletic office, and laboratories for soil mechanics, sanitation, and structural engineering. T-2 relieves crowding among graduate assistants, holding approximately 54 men in 28 offices. Represented are the mathematics, chemical engineering, mechanical, and electrical engineering departments, as well as public relations and **Engineering & Science**. T-3 is solely for the chemical engineers, providing shop facilities and drafting and computing rooms. Moved from Gates Laboratory basement, the shop will be less crowded, and at the same time permit the Chemistry Department shop to increase its own facilities.

Probably most important of all is the Health Center in T-4. Dr. Kremers and staff have moved from Kerckhoff into this building which has rooms for waiting, consultation, student infirmary, well-baby clinic, and emergency first aid. As this building was originally intended to house Dr. G. D. McCann's analog computer, it can be used only as a day clinic until negotia-

tions are completed with the State Department of Health to permit its utilization as an infirmary.

Moving and erection of these buildings were accomplished at small cost to the Institute. The Government awarded contracts for transporting them from Santa Ana and for rebuilding with war surplus materials. However any needs not met by surplus stores were provided by C.I.T., such as connections for water, electricity, and sewers. Also, the buildings were re-roofed with aluminum, which was located in war surplus.

Until the projected engineering quadrangle is completed, and additional housing units provided on campus for undergraduate and graduate students, these temporary buildings will give excellent service. Occupants of these shops, offices, and laboratories will have to move before any student housing construction can be initiated, as further units for undergraduate and graduate students will probably be constructed on the site now occupied by the temporary buildings.

Since the temporary quarters are now filled, and the Biology basement will be ready for occupancy in June, it is quite possible that Ray Gerhart's CalTech construction crew may change lunch rooms this summer, after four years.