F A C T S H E E T

Sid W. Richardson Physical Sciences Building
Texas Christian University

Architect Paul Rudolph of New York, who designed the building in association with Preston M. Geren of Fort Worth, sees it as "a place that shows that exciting things are happening; a mid-Twentieth Century structure that yet does no violence to the traditional Georgian architecture of the campus."

Size: Gross area of 156,000 square feet, almost tripling the amount of space devoted to science at TCU. The structure is connected to the 80,000 square feet of Winton-Scott Hall, occupied in 1952, which formerly held all the sciences and is being converted for use by biology, psychology and mathematics. The two buildings together are referred to as the TCU Science Center.

Occupants of the new structure are the departments of chemistry, physics, and geology; the TCU Computer Center; some inter-departmental facilities (machine shop, electronics shop, glass-blowing shop, specialized laboratories); offices of the TCU Research Foundation; a conference room; and, temporarily, the department of biology.

The design is intended to encourage a sharing of ideas, both within a department (by placing graduate work, undergraduate studies and faculty offices and laboratories near to each other) and between the departments (by placing all the sciences in the same Center and providing several areas for use by all occupants).

Among inter-departmental laboratories in the new building are one for electron microscopy (used in biology, physics, geology, chemistry, psychology); mass spectroscopy (chemistry, physics); environmental science (biology, geology, chemistry); a suite of X-ray diffraction laboratories located around a central computer control (physics, chemistry, geology).

49 per cent of the space is devoted to undergraduate programs, 51 per cent to graduate programs and research. There are 277 rooms in the building, only seven of which are lecture halls--two of them seat about 200 each, two about 100, two about 55, one about 25. (Most science classes have students at laboratory tables.)

Cost of the new building and conversion of Winton-Scott Hall is $7.6 million. The new building alone cost about $6 million. Where funds came from: $3.4 million from the Sid W. Richardson Foundation, $1 million from Amon G. Carter Foundation, $1 million from Moody Foundation of Galveston, $2.2 million from U. S. Office of Education.

Some special features of the new building:

Four theater-type lecture rooms have excellent acoustics and lighting; the teacher has at his disposal a preparation room for any demonstration he may make and a large overhead screen for rear-projection of films or slides. Six lecture rooms have outside entrances.

One three-room physics laboratory is completely "wrapped" in copper screening to shield it from electromagnetic interference. (It even stops radio signals; no radio or TV reception is possible in the lab.)

The accelerator room has 15-inch thick concrete walls to shield the rest of the building from any excess radiation accidentally produced inside it. (The experiments with an electron accelerator produce X-rays. There has never been a radiation accident at TCU.)

Utility corridors between the laboratories and classrooms give easy access to maintenance and revision of such necessities as:

--More than 3 1/2 miles of glass pipe which make up an acid waste drainage system, withstanding corrosive effects of chemicals and protecting the regular plumbing system.

--Almost 90 miles (472,590 ft.) of electrical wiring.

--About 4,300 feet of closed-circuit television conduit which allow all rooms to connect with each other and with the TAGER-TV system.

--About 6,000 feet of computer conduit which allow most laboratories and offices to have direct connections to the TCU Computer Center.

Three small "coffee break" lounges for students, faculty, staff.

A high pressure laboratory, on the roof of the building, is designed so that one wall will fall away outward in case an explosion of chemicals builds up pressures inside.

A separate structure, nearby but not attached to the building, is available for storage of dangerous chemicals.