

# Computer New Field To Boulez

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PALO ALTO, Calif., Aug. 7 —For the last week, Pierre Boulez, the composer and conductor, has been at Stanford University "learning, learning, learning," as he put it, to use the computer as a new musical instrument and composing device.

At a news conference here today, Mr. Boulez said he definitely planned to write new compositions in the genre of computer music "just as soon as time allows."

The French composer is currently conducting the New York Philharmonic Orchestra. His contract finishes in September, 1977, whereupon he will return to Paris to direct a new music institute that will, among other aims, explore the science and art of computer-made music.

The institute, called IRCAM for Institut de Recherche et de Coordination Acoustique/Musique, will open next year. The facility will house 30 to 35 artists and scientists whose mandate it is to study "the physical, theoretical and creative parts of music together as a team," Mr. Boulez said.

Composing computer music will be similar to composing traditional music, Mr. Boulez said. "You begin to combine sounds in your head and you build from experience to know what will happen next," he said. The computer is exciting, he added, because it can be both the score and the instrument at the same time.

The composer-conductor came to Stanford because it is here that the most advanced work on the direct production of music by a computer is being done. Similar research is under way at a handful of American and European laboratories and efforts are being made to share all new knowledge freely.

The Stanford music department is scheduled to open its own Center for Computer Research in Music and Acoustics this fall. The West Coast center will concentrate entirely on developing the computer as a medium of musical expression.

Computer music was born in 1958 at Bell Laboratories in New Jersey where scientists searched for a device that could generate absolutely precise sounds over and over again. As they perfected their machine-made tones, they realized they had stumbled upon a new medium for musicians and composers to explore.

During the nineteen-sixties, attention focused on music synthesizers, such as the Moog, Buchla and Arp, which used special electrical circuits to generate and modify sounds.

The computer music of today, however, is very different from the synthesizers. In a true "computer music system" the computer is able to generate, analyze and interpolate any sound imaginable.

"It is like learning to play a new instrument or learning to speak a new language, such as Japanese," Mr. Boulez said. "It would not be easy, but one could do it, no?"