theory with the help of engineers and mathematicians. Graphs, charts and scratch pads covered with equations and logarithmic spirals, the evidence of his latest project, are strewn over his desk in comfortable disorder.

The studio where the composer works and teaches takes up most of the ground floor of the Sullivan Street house the Varèses have owned for 30 years. It overlooks a quiet garden, and contains paintings by several old friends, including Alexander Calder, Fernand Leger, and Marcel Duchamp.

A sign above the naked high-fidelity components in one corner warns "Do Not Touch." Percussion instruments by the dozen are scattered on tables and in cupboards: A gleaming brass artillery shell casing; a zinc-and-copper "xylophone" made with a local plumber's help; and two ancient Chinese "xylophone" sticks, or claves, whose glorious sonorities the owner will gladly demonstrate for special visitors. Tapping softly around the rim with a padded stick, he explains lovingly, "You must always caress them first, to warm them up."

One cabinet holds a set of woodblock resonators, double-ended with a short handle between, that Varèse strikes delightedly, looking like a weight lifter receiving inspiration from a bar-bell. These and a drawer-full of shining percussion sticks, or claves, were a gift from Fulvio Pardini, a violin-maker from Tuscany who still plies his ancestral craft in back of a Sixth Avenue cabinet shop.

Fulvio is deeply grieved whenever Varèse expounds his ideas on the role of string instruments in the new music to come. (They're an "anachronism.") To allay his fears, the composer concedes that "all that exist should remain — the old instruments for the old music, naturally. I'm really a conservative," he smiles reassuringly, "so I want to go back and resurrect the original instruments of Monteverdi's time — for playing Monteverdi."

The trouble with standard orchestrations? "They strive always for a blending of colors." What an audience should really be made to hear are the utmost differences of colorings and densities, Varèse insists, staring off into some new spatial projection.

**Continued on page 108**