note that some early tests to determine the best location of a regulator (which indicated a location within the lungs) involved diving in a medium more dense than water and moving the regulator up or down to the most comfortable position relative to the body. An acceleration field effectively increases the density of the liquid and the compensating weight at the same rate, and so the required weight does not change as it would have to for diving in a different medium.

The concept of a "center of pressure" for the lungs, at which a regulator should effectively be positioned, probably loses much of its significance if a great pressure difference exists across the chest itself. (For example, one might expect difficulty in trying to breathe under mercury.)

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Strontium Content of Human Bone

In the issue of 1 August [*Science* **128**, 256 (1957)], Thurber, Kulp, Hodges, Gast, and Wampler report on their measurements on the common strontium content of human bones from urban populations. They deduce a ratio of Sr to Ca in bone of $(0.45 \pm 0.1) \times 10^{-3}$. Combining this with the figure they quote for the same ratio in average soil, one obtains a discrimination factor of 16 ± 4, which has a significantly higher error than they quote.

This perhaps makes less disturbing the discrepancy between their measured discrimination and the one which can be calculated on the basis of the discrimination factors they quote for the various biological systems. Using these numbers—namely, human calcium half derived from vegetation and half from milk, plant-to-soil discrimination equal to unity, plant-to-milk discrimination equal to 7, and milk or vegetation to human bone discrimination equal to 4—one estimates the over-all discrimination between soil and human bone to be about 7 (not 16 as quoted in the report). A discrepancy of a factor of 2 is perhaps not surprising in view of the roughness of the numbers and the simplifying assumptions which have been made.

The factor of 16 ± 4 is certainly an encouraging sign, but its relative constancy in these measurements, as Thurber *et al.* point out, is largely a function of the averaging of food sources in a modern urban environment. It would be interesting to see similar measurements on bones from isolated rural populations in calcium-rich and calcium-deficient regions.

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