to learn that Claus *et al.* (*2*, p. 602) found, in another of Anders's samples, the following items: fragments of *Compsopogan* filament (Rhodophyta), individuals of *Chlorella*, a rare species of *Nägeliella*, cladoceran antennae, and so forth. These authors observed that "although the organized elements were clearly visible, the presence of aquatic contaminants suggested a more recent sediment than that of a carbonaceous meteorite."

The contaminants, with special reference to the cladocerans, clearly occupied a small aquatic situation, perhaps on an alluvial floodplain in the area of impact. This is suggested by the map of the area (*2*, Fig. 14). If not, then they probably represent post-impact contaminants acquired during handling or museum storage. Since *Chlorella* species were also reported in the list of biological specimens found in the surface soil of the impact area at the present time, it is reasonable to conclude that the other aquatic objects found in Anders's specimen also were present in the impact area in 1864. However, according to Claus's Table 2, these other forms are not present in the Orgueil area today.

We may thus infer that some degree of change in the microbiota has occurred in the impact area since 1864. If cladocerans, *Compsopogan*, and others were once in the impact area, why could not other forms belonging to aquatic biotas also have been in the area and since have disappeared?

3) *Organized elements in mineral grains in chondrites.* Some organized elements have been found in mineral grains which suggests that they are indigenous and were not added at impact or subsequently. Brian Mason (*5*) has pointed out that the "environment can affect the 'organized elements' " in various ways, among others, in the amount of bound water in magnesium sulphate in the chondrites. Now, it seems desirable to reconcile these two observations.

If one grants that a given organized element incorporated in a chondrite mineral grain represents a once-living individual, then it becomes important to know about all possible environmental and diagenetic effects on mineral grains in carbonaceous chondrites. Specifically, to advance the argument, if one assumes that a given organized element embedded in a mineral is a terrestrial contaminant, then a plausible explanation is needed for the steps leading to its incorporation. One might even ask whether it is possible to *deliberately* incorporate one or more such contaminants in mineral grains of such chondrites under the prevailing temperature conditions in soil or museum air, or during the preparation of thin sections?

The terrestriality of the organized elements is their most distinctive general characteristic. Either homeomorphy (the least likely possibility) or terrestrial contamination (the most likely possibility) can account for it. Only a vigorous and healthy scepticism about *every detail* of published reports (pro and con) can help to resolve the matter.

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Science in the Humanities

Comments such as those made by Marcel Roche in "The humanities in the scientific curriculum" (*Science* **141**, 698 (23 July 1963)], distract interested observers from the true problem. Scientists *do* know about the humanities, and they understand them, appreciate them, and participate in them. The degree may be less than perfect but it certainly is not zero, as is the case with regard to the comprehension and understanding of science by the nonscientific community—the major portion of our population.

These people are proud of their ignorance! How often one hears a comment such as, "Oh, that's mathematical; I never was any good at figures."

Ask any nonscientific man-in-the-street to explain, even in a rudimentary sense, why an iron gets hot but a refrigerator gets cold when both are plugged into the same outlet; or how a TV set functions or why a satellite stays in orbit. Their ignorance is abysmal.

What *is* needed, desperately, is science in the humanities curriculum—not further additions to the converse.

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