majority to mention them without being assured of anonymity. In addition, the general opinion of astronomers on the subject is much less negative than one says sometimes, and the least that you could say is that there is no consensus, with many wanting an objective study of the phenomenon without any preconceived ideas. The private conversations that I have had with French colleagues confirm Sturrock's conclusion: many would refuse to broach the question with a journalist, but when I speak with them about a serious scientific study, they state that they are in agreement.

Appendix 3 - Life in the Universe

The question of extraterrestrial life left the domain of belief barely a few decades ago and entered the domain of scientific research, and the advances in this domain have been very rapid for several years. Beyond earth, the solar system proves to be currently unsuited to life, but the "Viking" probes have shown that some three-and-a-half billion years ago, the planet Mars must have offered much more favorable conditions than at present, namely with the existence of liquid water. Thus it is not ruled out that an elementary life form (bacteria) could have existed there, as was then the case on earth. The study of fossils is, besides, one of the reasons for future Martian expeditions, automated first, then with humans aboard. The discovery of fossils in a meteorite originally from Mars, as announced by NASA, is still the subject of a debate in the scientific community. But the very existence of this debate increases the interest in going to take a look on site.

Outside the solar system, astronomers have long thought that, very generally, the stars should be surrounded by planetary systems, but it has only been in very recent years that experience has confirmed this theory: we now know of a half dozen stars each accompanied by at least one planet. Biologists, for their part, are making rapid advances in understanding the chemical mechanisms that give rise to life, and this appears more and more to be a necessity rather than a coincidence.

Twenty years' experience has shown, from Siberia to the ocean depths, that life adapts itself to sharp variations in temperature or to extreme temperatures where it was previously considered to be impossible.

For 35 years, radioastronomers have carried out different programs searching for an intelligent radio signal coming from space (SETI: Search for ExtraTerrestrial Intelligence). No signals have been detected yet, which is not surprising given the immensity of the spatial and frequency domain to be explored. A major NASA program, which was canceled by the U.S. Congress, was revived using private funds and should improve the sensitivity of the search by several orders of magnitude. The French radiotelescope at Nançay, where several SETI studies have already taken place, will perhaps be included in this program.

Appendix 4 - Colonization of Space

The second half of the 20th century will have been the half century of the exploration of the solar system: man on the moon, probes placed on Mars and Venus, others in the immediate vicinity of the other planets (except Pluto), comets, and asteroids. The 21st century might be the century of the colonization of our system, with permanent human settlements and preparation for voyages to other planetary systems.

The coming years will see the positioning of the permanent orbital station *Alpha*, the international follow-up to the Russian Mir program. Next, the Americans plan, in