The idea that this is the only habitable world in the universe belongs to those periods of astronomy when many things were dreamed of and few were proven. Mr. Wallace, in the book the title of which is taken as that of this article,\(^1\) with an array of sciences, revives the dream, and attempts to show that planetary life is impossible, and that to assert its possibility might be a false note in the harmony of the universe that should be set right. It is not often that so extensive a work of science is brought out by so great a master in order to establish a negative. True science deals chiefly with what is positive, denying only in order to clear away any false theory that hinders positive truth. But no theory of human life in other worlds has found a permanent place in the scientific world, nor is there any serious mention of it, except as a possibility. Mr. Wallace pleads for his point with such zeal that one almost suspects some ulterior purpose, some hidden and cherished view in another field that conflicts with his theory. For example, if he were a pessimist, he might be eager to limit life to this small world, and so could rejoice in a lifeless universe beyond it. But he indicates no such motive; and, having planted himself on a material theory of the universe, he stands there with fine consist­ency, and refers to opposite views—chiefly theological—with slight recognition and no respect. But that he ignores theology as having any bearing on the subject, and the fact that the treatment of it has been idle, is no proof that theology, in a large sense, has nothing to do with it. It may, indeed, turn out before long that it has more to say on the subject than physical science; or, rather, that the latter cannot be segregated from other sciences and stand alone for general conclusions without sharp questioning; for matter, as such, fails to include several of the most essential factors that enter into the problems of life. But, so far, it must be said that theology has contributed nothing of real value to either side of the question; and, while intended to strengthen faith in revelation and Christian doctrine, it has worked in the opposite direction as change in doctrine and growth in science both proved defective evidence.

The problem at no time ever awakened so deep and popular interest as in the first half of the last century. A well-written French treatise, favoring the theory of planetary life, in 1686 had held the attention of scientific circles in all Europe up to the eighteenth century, and had among its adherents the Herschels, Chalmers, Dick, Isaac Taylor, and Arago, as in the previous century it had been favorably regarded by Newton. That such men entertained a theory for which they could not adduce a scientific reason indicates more on the side of its probability than any amount of scientific improbability could weigh against it. It revealed an unconscious tendency of the human mind to lean to that side of the question. There are some subjects that out-reason reason and plant in us con-
victions for which we have no ordinary evidence—a point touched by Tennyson when he asked the question,

“Who forged that other influence,
That heat of inward evidence,
By which he doubts?”

The most conspicuous actors in the discussion in the last century were Dr. Chalmers, of Edinburgh, and Professor Whewell, of Cambridge—one favoring the doctrine of planetary life, the other questioning it. The story of Chalmers's week-day astronomical discourses is as marvelous as any of the wonders he described in the heavens. All Edinburgh shut up shop on Thursday afternoons to hear them. When published (in 1817), they ran abreast of Scott's "Tales of My Landlord," and kept an equal pace; twenty thousand copies were sold within a year. It was not merely their eloquence, but the interest of the people in a question full of perplexity, to which they were half willing to assent because it cleared up so many difficulties. Chalmers's theological speculations on the subject have no recognition to-day, but he lifted the people into a region of high thought, and spread an atmosphere of divine sanity over phenomena that were in themselves most improbable. For belief that other worlds might be inhabited, he relied wholly upon doctrinal opinions that thus became more explicable. A strange logic it sounds to-day. After so unfolding the heavens that this world sinks into insignificance, he encounters the unbelieving scoff that the Ruler of the Universe should send his Son to this little world to expiate its sin by his death. He meets this plausible criticism by so exalting the value of the immortal soul as to justify God in his condescension, and carries out his thought that the same gracious work extends to other worlds where there may be the same need of it.

Dr. Chalmers was hovering in the region of a truth that is haunting the best thought of to-day, but he failed to see it, for the double reason that he beclouded a universal theory by a narrow dogma, and also because a modern conception of man in his relation to nature had not yet dawned. It is not the first time that a narrow dogma has slain great possible truth knocking at the door of faith, and so, in effect, has reversed the process in those who came to scoff but remained to pray.

A stronger but less interesting man, Professor Whewell, of Cambridge—of whom Sydney Smith said that "science was his forte and omniscience his foible"—finding that the seed sown by Chalmers had yielded a popular following on one side and skepticism on the other, undertook to controvert his position in a book that called out a vast amount of debate, until its title, "Of the Plurality of Worlds," became a household word in both continents. It would appear that Chalmers, along with Richard A. Proctor—an abler astronomer than either named—had held the field in spite of the fact that he himself in his old age discarded his own early logic. This state of things, both in science and theology, called out Whewell, who held back from nothing that needed mending in the whole circle of thought. But he contributed little more than Chalmers, and simply planted himself on the other side of the doctrinal question. The only thing to be remembered to-day is that one revealed himself as a strict Calvinist and the other as a Cambridge Latitudinarian.

Mr. Wallace, coming to the question a century later, plants himself on matter only, and relies upon its verdict that the stellar universe is void of life. At one point, though a scientist of the first order, he strangely holds to a theory that had some recognition a few years ago, but has little at present, that the stellar universe is finite and its extent is determinable, and that the plane of the Milky Way comprises it; that the solar system is not far from the center of the plane, and therefore the earth is nearly in the center of the stellar universe. This is interesting intelligence, if it is true, but the greatness of the elements of the problem and the smallness of the earth would seem to make it an audacious claim. One suspects some necromancy, or extra-scientific source of so accurate information—as when Swedenborg was asked how he could so accurately describe heaven and hell, he replied, "I have been there." As for ourselves, we do not desire the infor-
mation, however won. If it could be proved that the stellar universe is finite, it would so react as to weaken belief in an infinite God. Limit the Creator in any way and the limitation would spread by suggestion to all his work. We are correlated to the infinite, and a finite creation throws us into confusion at all points. Mr. Wallace's probability irritates by defrauding us in such a way that the assurance that our world is the center of all worlds would not placate us if all the stars were given over to us. There is stored up in infinity, in its mystery and its reality, the inspiration by which we live.

No one to-day quarrels with science. If it demonstrates that the band of the Milky Way binds creation into one bundle, so be it. We must make the best of it, even if we are doomed to undergo the worst of it. It must be said, however, that this book, written with consummate care and sincerity of purpose, is not a cheerful message, and we could wish it had been briefer. As one reads along its clear pages, and between the lines finds not only the doom of mankind, but the universe vacant of life—except, perhaps, a solitary God—one asks why the proof is piled so high. One page is as effective as the three hundred and twenty, and the testimony of one science is as good as that of all. While the reader gains much knowledge, he asks to what profit, unless he is provoked to say, with Tennyson, that "nothing worthy of proving can be proved," and in protest declares in its place, "I have felt." Two voices speak through it—one of despair, and one that reacts in hope.

If this planet is the center of the universe—and it, as well as any other, might hold this place—it yields us different thoughts from the claim of its being the only inhabited world. In that case, what will happen when, after a few aeons are past, the only hearthstone of the universe falls into the sun and is burned up? So intolerable is the despair that settles upon us that we instinctively protest against Mr. Wallace's limitation within the Milky Way, and assert that every system, in its evolutionary process, must produce a planet that repeats every physical and human phase of our own. A planet may die, but a lifeless universe!—"that way madness lies." There is abundant probability of such a theory; the doctrine of chances favors it, because they are infinite. We have, to-day, a tenable theory of life that is human. When the first sign of organic life appeared upon the earth, it was as sure that it would end in ideal man as that the keel of a ship will come to be full-rigged and launched and sailed for some harbor. It is the logic of creation, and makes it explicable. As Mr. J. Brierley says, "Man himself is the great example of non-finality. In him all the kingdoms of Nature meet. He is a general exhibition of their systems of laws, and of their transcendence in succession by something higher. His bodily life, by its vitality, walks clean away from the whole law region of the inorganic world.”

If physical science sweeps the universe clear of all life by material tests, it leaves a vast realm of what may be called mind-stuff that points in an opposite direction, and abhors the vacuum of a dead or mindless universe. There need be no hesitation in passing by matter when discussing questions as to origin and destiny, not because it robs us of what we most need, but because it blocks mind in fulfilling its strongest instinct. But physical science itself is moving in that direction; it cannot free itself from its own complications except by recourse to spirit as at the bottom of all things. Matter is so fast running away from itself into something inexplicably fine and strong that it must bear some other name. Besides, as we grow less satisfied with attempts to find the origin of life in matter, we are less troubled over the probability that it determines our final destiny. Haeckel's "Riddle of the Universe"—not going beyond matter to explain it, failed to excite any thought over it. Man has never ceased to search for the cause and end of creation in the source of it: nothing can be more unreasonable than to look for its explanation in its processes rather than in its source and end. This is admirably referred to in Stewart and

1 "Christian World," March 26, 1903.
Tait’s “The Unseen Universe”—whose conception of it is that “it has developed by an intelligence resident in the unseen, and by scientific analogy returns to the spirituality of the unseen.” In this pregnant sentence matter is regarded as an incident between the creation of man and his final destiny, while first and last he is himself spiritual and returns whence he came.

We are surprised on the last page of Mr. Wallace’s book to find an admission that qualifies the tenor of the entire volume. He says: “Of course there may be, and probably are, other universes, perhaps of other kinds of matter and subject to other laws, perhaps more like our conception of the ether, perhaps wholly non-material, and what we can only conceive of as spiritual.” This is the very thing we have demanded in our long imprisonment in matter in the previous pages—every sentence a knell of despair. Were there not so much well-stated science, we should be tempted to say that it nullifies all that has gone before. Another kind of universe, “wholly non-material”—to this we must go if we would know anything of our origin and destiny, or of human life between; for it is the spiritual that makes us human. It is here also that we can get any light both on immortality and possible life in other worlds. The two problems run together, but both hinge on life that is non-material—that is, on the reality of the Spirit as creative Will. The Spirit brooded on the waters and begot the world; it overshadowed humanity, and man was the son of God.

The Spirit is a mystery, but matter, if taken alone, is inexplicable. Tennyson makes an accurate distinction in his most used and perhaps farthest-reaching poem—“Flower in the crannied wall”—because it contains his greatest thought, which we take to be that there is a relation between the slightest thing in creation and the infinite Creator; and if that is known, all is known. A universe that is only a mystery, however beautiful or awful, can teach us nothing—as Job confessed; but the equally mysterious flower in the wall, and the still more mysterious being—man—can add light to mystery, and even outshine the stars. For in man, whether his origin be in protoplasm or divine fiat, more volume of truth, more complexity of law, more singleness of purpose, are to be found than in the whole universe so far as we can get at it. A handful of earth from an ant-hill can tell us more of creative power and purpose than the entire solar system. More than this—we may go beyond the flower in the wall, and without an if say that in knowing man one may know God and well-nigh the secret of the whole machine—all worlds and all beings taken together.

It is a vain and useless undertaking—save for specific scientific purposes—to explore the sidereal universe to ascertain if it is habitable by man, and—finding that it is not—end the search with a bare negation. But when man is sounded to the depths of his being, and his history in the æons that have produced him is known, and the signs that he is keyed to some purpose outside of matter, and that he is himself conscious of a Being who made him—when all this is known, we are in a way to find out if it is possible or probable that he can live in other worlds, or live at all after death. For man is the key to this world; nothing has meaning until he appears, when all things are vested with reason why they are and what they are for. There is but one explanation of him. Ideal man carries with him our only conception of the Creator. The son of God becomes a natural phrase. Humanity easily turns to the Father in terms of oneness. Life’s problems are solved, and the laws of the Father fit easily upon every son of man. If we go on to speculate and ask why man came to be, and why such a rapture of joy springs up when the ideal man appears, our last thought is that the inner power of his creation is God himself. Creation becomes a spiritual process, and matter is the stuff used. Thus we see the rhythmic play of his being—perhaps an eternal process—the swing away from himself in remotest matter and return to himself in his own image.

In such thoughts—justified by more than guesses, and by Scripture if read aright—we find the springs of love and
adoration and hope. Besides this, the keenest joy a true man can feel is to know his place in creation and find that he is embosomed in God and is one with him.

These thoughts have close relation to the question as to man’s place in the universe—discussed by Mr. Wallace in terms of physical science, but without finding a sign of him except in this already well-known part of it. He looked in the wrong place—among the stars; it was too far off. The earth under our feet and the soul of man contain the secret of human destiny, if it is to be found anywhere. And it is so clear that it almost forces belief that a process so explanatory of life in this world, and laying such hold on the Creator of the universe, must be repeated—infinitely perhaps—in countless worlds where the same conditions exist as here. It is to-day generally believed that evolution is a universal law; it is the play of the universe. Therefore it is probable that if creation is a divine process in God himself, it is a universal process. It is better to think on such a question in harmony with the profoundest and most sacred laws we know, and in positive rather than in negative ways. Hence it may be true, as Tennyson says:

"Many a planet by many a sun
May roll with the dust of a vanished race."

And if with a dead race, why not with a living one?