SOME NEW BOOKS.

Mars: Does Organized Self-Conscious Life Exist Upon That Planet?

It will be generally acknowledged that nobody is better qualified to treat the subject mooted in the query which forms the heading of this article than the author of the work published by the Macmillans and entitled *Mars as the Abode of Life*, by Dr. PERCIVAL LOWELL, director of the observatory at Flagstaff, Ariz., and non-resident professor of astronomy at the Massachusetts Institute of Technology. This volume, of some three hundred pages, is based upon a course of lectures on the planet Mars which in 1906 Prof. Lowell was invited by the trustees of the Lowell Institute to deliver. Though dealing specifically with Mars, the theme of the lectures as now revised is that of planetary evolution in general, and the book is thus a presentation of something which the author has long had in mind and of which his studies of Mars have formed but a part, the research, namely, into the genesis and development of what we call a world; meaning by "world" not the mere aggregation of matter, but that which the aggregation inevitably brings forth. The subject, which thus obviously links the nebular hypothesis to the Darwinian theory, bridging the evolutionary gap between the two, Prof. Lowell has called "planetology," designating by this term the history of a planet's individual career. It is in this twofold light that Mars is here regarded: how it came to be what it is, and how it came to differ from the earth in the process. We purpose to point out very briefly what the author has undertaken to show, first (in the fourth chapter), how the actual condition of Mars differs from that of the earth, and, secondly (in the sixth chapter), his demonstration of the proofs of the existence of life on Mars.

I.

A study of Mars has convinced Prof. Lowell that this planet occupies with reference to the earth in some sort the part of prophet. It enables us to no mean extent to foresee what eventually will overtake the earth in process of time. It is the planet's size that has thus fitted it for the role of seer. Its smaller bulk has caused it to age more quickly than our earth, and in consequence it has long since passed through that stage of its planetary career which the earth at present is experiencing and has advanced to a further stage to which in time the earth itself must come, if it is not overwhelmed beforehand by some other catastrophe.

It is in the matter of water that Mars stands forth as a prophet, and this in two ways: water, considered as polar ice and as constituting oceanic expanses. The first of these has reference to our own glacial epoch, a geological phenomenon the strangeness and seeming unaccountableness of which have grown as scientists have contemplated it with more care. That vast areas of the earth's northern hemisphere, and of the southern too, were at times covered by a continuous ice sheet is a fact remarkable enough in itself, but still more curious by reason of the difficulty experienced in assigning it to an adequate cause. Prof. Lowell points out that "cosmic cooling of our planet will not explain it, certain as that cooling is, for the refrigeration was partial and recurrent as well. Croll tried to account for it, but, ingenious as his idea was, it will not hold water—in the shape of ice, in the form in which he put it, and it is now virtually abandoned by geologists, although it contains considerable truth."

Now, it so happens that Mars has something to say upon the subject, something which throws light upon the phenomenon as a general planetary process and specifically upon its occurrence upon our earth. It is because Mars chances to present precisely the astronomic conditions which form the basis of Croll's theory and at the same time shows the precise opposites of the prescribed results that its evidence is valuable. What Mars proves is, as regards the general planetary process, that to perish by wholesale glaciation is not the inevitable doom of a planet. Unless water shall previously have existed in abundance, secular cooling will not necessarily bring about wholesale glaciation, and the history of Mars demonstrates that a planet may wholly escape such a termination to its career by having previously parted with sufficient moisture, and may enjoy an anti-glacial state in its old age.

We come now to the second matter in which the present state of Mars portends the future of the earth. Not only does unmeasured age preclude the possibility of a death by frost but it tends to a death by thirst through deprivation of water. The observations made by Prof. Lowell and the deductions drawn therefrom show that Mars apparently had seas in the past, though it possesses none to-day. The question at once arises to what this deprivation of water was due, since it was not original. Our author points out two ways in which a planet not only may but inevitably must be robbed of its water supply from without and from within. It may lose its oceans by absorption into its interior or by a slow depletion into space. While a body is yet molten the continuity of its substance bars entrance to aught else; but as it cools and shrinks fissures and crevices open in it, and into these the surface water sooner or later finds its way. As a planet grows old its very wrinkles must cause it to dry up. This is one drain upon its surface seas that is sure to occur. The other is equally certain to happen. It depends upon the fact that gases are composed of particles called molecules travelling at great speeds. Temperature is the expression of this energy, varying, indeed, as the product of the square of the speed by the mass of the particle. Such motion it is that causes gases to expand.

In their journeyings the molecules collide and thus give and take velocity. In consequence some are moving swiftly, some slowly. The molecules are flying about in all directions, and as long as they do not go too fast the planet about which they are will, as an atmosphere continues to control them by its gravity. This it can continue to do up to a speed called its critical velocity, which is the velocity a planet can impart to a particle falling freely to it from infinite space, for the planet can annul just the speed it is able to cause and no more; but if in the give and take of motion a molecule gets to going faster than the critical velocity, it will escape into space and start on interstellar travels of its own. These molecules will never return to the body they have left, and as such desertion is constantly going on it will eventually deplete the planet of all the gases it once possessed. The smaller the body the sooner it must lose its seas, or the less can it hold on by its lesser gravity to its water vapor. Prof. Lowell shows that three stages in a planet's inevitable parting with its hydrosphere are exemplified to-day by the earth, Mars and the moon. On the earth the sea bottoms still hold seas; on Mars they only nourish vegetation; on the moon they contain nothing at all. Parity of reasoning points to the road the earth must follow. While sharpened by science, we actually perceive the progress along it that our earth has already made. The late Prof. Dana of New Haven constructed maps of North America from the evidence afforded by the geological sedimentary strata, showing what of it had been terra firma in the successive periods of geological time. A comparison of his charts gives most interesting and conclusive proof that the land in North America has been gaining at the expense of the sea from the time the sea first was.

Nor is North America alone in its natural territorial aggrandizement. Europe exemplifies the same generally steady if temporarily fluctuating conquest of terrain. As in North America, so in Europe, the land started at the north and encroached upon the ocean further and further southward. What we commonly regard as Europe was in palæozoic times under the surface of the sea. Only the north of Scotland and Scandinavia protruded. Wherever geologists have studied them the strata tell the same tale. The land has spread while the ocean has shrunk from the time when they first portioned out the surface of the earth between them.

What is exhaling in the oceanic areas may be gauged by what is happening in the smaller cut off bodies of water, such as the Caspian, Sea of Aral and the Great Salt Lake. Prof. Lowell recalls the fact, often overlooked, that the drainage basins of those inland seas are not only comparable with but actually larger in proportion than the drainage basins of the oceans. Consequently they are fed the better of the two; nevertheless, they are all, with one consent, evaporating at a very perceptible rate. Most of them are below the level of the sea, which in itself speaks for the depletion undergone since they were left behind by the retreating main body of water. In the great Kara Bujas Gulf on the Caspian's eastern side the evaporation is so rapid that while a current sets into it from its narrow opening with no compensating outward current the gulf is becoming so salt that seals can no longer live there. In fine, the Caspian is disappearing before our eyes, as the remains some distance from its edge of what once were seaports mutely inform us. Even so it is with Great Salt Lake, the very rate of whose subsidence is known and measured.

The earth, then, is going the way of Mars. So there is witnessed now, so here in time will be ushered in, a phase of planetary evolution to which the earth as yet is a stranger—the purely terrestrial as opposed to the present terraqueous character of its surface. Much must surely follow such a change of scene, and for what it will be like we must study Mars to know, since Mars presents to us the picture of a world that has reached that pass. Thus, while we directly scan that planet for what it has to say about itself we are indirectly reading a story which has something to tell us of our own future career.

II.

In our survey of Mars, then, we behold the saddening picture of a world athirst, where, as in our own deserts, water is the one thing needful and yet where by nature it cannot be got. But one line of salvation is open to the inhabitants of that planet, and that lies in the periodic unlocking of the remnants of water that each year gather as snow and ice about its poles. The evidence of observation thus bears out what might be suspected from the planet's smaller size, namely, that it is much further along in its planetary career than is our earth. This aging in the planet's own condition must have had its effect on any life it may previously have brought forth. Such life at the present moment would be likely to be of a high order; for, whatever its actual age, any life now existent upon Mars must be in the land stage of its development, which on the whole, as Prof. Lowell reminds us, is a much higher status than the marine. Prof. Lowell points out in addition that life if existent upon Mars should probably have gone much further, for in its evolving of terra firma Mars has far outstripped the earth. The surface of Mars is now all land. Its forms of life must be not only terrestrial as against aquatic but even as opposed to terraqueous forms. All the denizens of that planet must have reached not only the stage of land dwelling but that further point of pinching poverty where brain is needed to survive at all. Prof. Lowell's view of the persistence of life under such physical conditions is that the struggle for survival amid the planet's decrepitude and decay would tend to evolve a Martian intelligence to cope with circumstances growing momentarily more and more adverse. Furthermore, the solidarity that the conditions indicate would conduce to a breadth of understanding sufficient to utilize it. Intercommunication over the whole globe is made on the planet of Mars not only possible but obligatory. From this fact Prof. Lowell's deduction is that it would lead to the easier spreading over it of some dominant creature—especially were this being of an advanced order of intellect—able to rise above its bodily limitations to amelioration of the planetary conditions through exercise of mind. What absence of seas would thus entail absence of mountains would further. These two obstacles to distribution removed, life in Mars would tend the more quickly to reach a highly organized stage. Thus Martian conditions themselves make for intelligence.

The proof of the existence of mind in Mars will be found set forth by Prof. Lowell in the fifth and sixth chapters of this volume. Prof. Lowell holds that discovery of a truth in the heavens varies in nothing except as regards the subject of discovery from a crime on earth. The forcing of the secrets of the sky is, like the forcing of man's secrets, simply a piece of detective work; like too, or should be like, the methods employed in the discovery of truth and in the detection of crime. In astronomy as in criminal investigation two kinds of testimony require to be secured. Circumstantial evidence must first be marshalled and then a motive must be found. To omit the purpose as irrelevant and rest content with gathering the facts is really as inconclusive a procedure in science as in law, and rarely ends in convincing, any more than in properly convicting, anybody. Coordination is the end of science, and coordination is only another name for theory. To be valid the theory must fulfil two conditions: It must not be contradicted by any fact within its purview, and it must assign an underlying thread of reason to explain all the phenomena observed. Circumstantial evidence must first lead to a suspect, and then this suspect must prove equal to accounting for the facts.

This method is pursued by Prof. Lowell in the book before us. Starting with the known physical laws applicable to the concentration of matter, he has shown that, though in general the course of evolution of the earth and Mars was similar, the smaller mass of Mars should have caused it to differ eventually from the earth in some important respects. Of these respects three are noteworthy: The surface of the planet should be smoother than the earth's, its oceans should be relatively smaller, and its air should be scantier. On turning to Mars itself, he shows that these three required attributes for the planet are precisely those which the telescope has disclosed. The planet's surface is singularly flat, being quite devoid of mountains; its oceans in the past covered at most only three-eighths of the planet's surface, instead of three-quarters, as with the earth; and, finally, its air is relatively thin. Prof. Lowell next demonstrated *a priori* that physical laws should, from the smaller mass of Mars, have caused it to age more quickly, and that this aging should reveal itself by the more complete elimination of what oceans it had once possessed and by the wider spread of deserts. Telescopic observation has brought out these peculiarities; no oceans now exist on the planet's surface, and desert occupies five-eighths of it.

Prof. Lowell next proceeded to consider the two most essential prerequisites to habitability: water and warmth. Water was first sought for, and it was found in the polar caps. The phenomena of the polar caps on Mars proved explicable as consisting of water, and not as of anything else. Our author next took up the question of temperature with great particularity and found several factors to the problem not hitherto reckoned with. When these were taken into account the result was entirely different from what had previously been expected. Instead of a temperature on Mars prohibitive to life Prof. Lowell emerged from his researches with proof of a temperature entirely suitable for it. This turned out to be even more true for animals than for plants. For a climate of extremes is what Mars appeared to be, with the summers warm. Our investigations on earth have shown that it is the temperature of the hottest season that determines the existence of animals, cold much more adversely affecting plants. To the presence of plants on the surface of Mars, however, the look of the disk conforms. Scanning it, Prof. Lowell marked effects which could only be explained as due to vegetation. Thus the conditions on Mars show themselves hospitable to both great orders of life, the latter actually revealing its presence by its seasonal changes of tint.

A motive having been found of the most drastic kind for tapping periodically the polar caps on Mars and supplying the moisture and resultant vegetation which otherwise would be unobtainable elsewhere on the planet's surface, it remains to examine whether such a purpose could be carried out. In his discussion of this question Prof. Lowell begins with pointing out that as a planet ages any organisms upon it would share in its development. They would have to evolve with it, indeed, or perish. At first they would change only as environment might offer opportunity, in a lowly, unconscious way. As the brain went on developing, however, they would rise superior to such occasioning. Originally the organism is the creature of its surroundings; later it learns to make them subservient to itself. In this way the organism avoids unfavorableness in the environment or turns unpropitious fortune to good uses. Even here upon this earth man has acquired something of the art of adaptation. What with clothing himself in the first place and yoking natural forces in the second, he lives in comfort now, where in a state of nature he would incontinently perish. Such adaptation in mind, making it superior to adaptation in body, is bound to occur in the organic life on any planet, if such organic life is to survive at all, for conditions are in the end sure to reach a pass where something more potent than body is required to cope with them.

Prof. Lowell shows how it is possible to apply a test whereby we can tell whether such high adaptation of intellectual life exists. Certain signs will be forthcoming if such intellect is there. Increase of intelligence will cause one species in the end to prevail over all other species, as it has prevailed over its environment. What it found inconvenient or unnecessary to enslave it would exterminate, as we have obliterated the bison and domesticated the dog. This regnant species would thus become lord of the planet and spread completely over its face. Any reaction it might take would in consequence be planetwide in its exhibition.

Such is precisely what appears in the world spread system of canals observed on the surface of Mars. That the canal system joins the surface from pole to pole and girdles it at the equator betrays a single purpose there at work. Not only does one species possess the planet but even its subdivisions must labor harmoniously to a common aim. Nations must have sunk their local patriotisms in a wider range of view, and the planet be a unit for the general good.

As the dominant being has conquered all others, so will it at last be threatened itself. In the growing scarcity of water will arise the premonitions of its doom. To secure what may yet be got will thus become the chief aim of its endeavor, to which all other questions will be secondary. Thus, if these beings are capable of making their presence noticeable at all, their great occupation should be that of water getting and should be the first, because the most fundamental trace of their existence an outsider would be privileged to catch. The latest stage in the expression of highly organized life upon a planet's surface, which a far remote observer would be able to note, would be that just antecedent to its dying of thirst. A sad interest attaches therefore to man's discovery of the existence of highly organized mind on the surface of Mars, an interest due to the fact that this highly organized life is, cosmically speaking, soon to pass away. To our eventual descendants life on Mars will no longer be something to scan and interpret. It will have lapsed beyond the hope of study or recall. Thus to us it takes on an added glamour from the fact that it has not long to last. The process that brought it to its present pass must go on to the bitter end, until the last spark of Martian life goes out. The drying up of the planet is certain to proceed until its surface can support no life at all. Slowly but surely time will snuff it out. When the last ember is thus extinguished the planet will roll, a dead world, through space, its evolutionary career forever ended.

M. W. H.

A Charming Book on Egypt.

If the succession of remarkable discoveries made in late years in Egypt were not enough to fascinate the imagination the delightful volume which M. G. MASPERO calls *New Light on Ancient Egypt* (D. Appleton and Company), admirably translated by Elizabeth Lee, would allure its readers to the land and its history and to the new Egyptology. It is made up apparently of articles written as each discovery was made during the last fifteen years and comes so close to the present as to describe the Cow of Deir el Bahari and Mr. Theodore Davis's Tomb of Queen Tiyi. M. Maspero is one of the most distinguished of modern Egyptologists; he was Mariette Bey's successor as head of the Cairo Museum; he is now Director of Excavations in Egypt. He speaks with all the authority of full knowledge, but in these articles, designed to make known to the general public the results of his science, he shows the lightness of touch and the faculty of being entertaining which is one of the best characteristics of French literature. While explaining the discovery of the moment he puts before his readers vividly the life and the ideas of the Egyptians of 5,000 years ago; there is unity of thought in his chapters, though they deal with many subjects of the most varied kind, and the reader will close the book with the conviction that he understands something of Egyptian character and that it is a history of living human beings that is revealed by the hieroglyphs and the monumental remains. Perhaps a revision might have removed in some instances the doubts and the conjectures which were natural at the time of first discovery; it would, however, probably have taken away also some of the freshness and liveliness of the original impressions.

In the wealth of material offered by M. Maspero it is necessary to chose, and perhaps his explanation of the tombs at Thebes will give a good example of the way in which he treats his subject and the manner in which he makes his ancient Egyptians intelligible. The fashions of this life were extended to the next. Everybody wished to have a residence of his own at Thebes, and the land, which belonged to the King and the priests, had to be bought. The tombs were probably often already built at the time of the purchase; the temples supplied the artists and workmen. The ordinary tombs consisted of a straight façade cut out in the rock so as to allow of a little platform in front; a low door, sometimes flanked on either side by a figure representing the proprietor and hieroglyphics recording his titles; a narrow chamber parallel to the façade and behind it a corridor or another chamber with one or two statues. That was the exterior chapel, where relatives brought votive offerings on the days fixed by the ritual. The vault proper was better guarded; it was reached either by steep galleries that reached deep into the mountain or by shafts hidden in the ground of the rooms or of the platform. As soon as the tomb was cut out by the masons the sculptors and painters appeared. The artists possessed two or three series of pictures for the adornment of the tomb. One comprised scenes from the private or public life of the dead man, another showed the funeral rites from the time the mummy was formed to the time when the gods of the other world took possession of it. The conventional schemes followed by the artists enable the archæologists to reconstruct the decoration by comparing the pictures found in many different tombs.

The Egyptian theory of life after death controlled the choice of subjects. The soul was nourished on votive offerings and absorbed them at first in reality and later in symbol; then the picture or image represented to the soul, to the double dwelling at the bottom of the vault, the living animal or the baked loaf. Here M. Maspero must speak for himself: "Did the dead man desire bread? The artist would sketch the fields and the canals by which they were irrigated, the oxen drawing the plough and the sower scattering the seed; then the harvest, and the reapers, scythe in hand, cutting the corn; the threshing of the ears, the grain stored in the granery. The vines were represented on a panel of the wall at the side, with the gathering of the grapes, the wine pressing and the pouring of the unfermented liquor into jars. The dead man assisted in these labors in company with his wife, dressed in new clothes and wearing a new wig, as on the days of his earthly harvests." "Elsewhere might be represented the hunting of the river fowl or of the desert animals, fishing in the marshes, all the pleasures which, loved of the Egyptian, not only afforded him distraction from the toils of existence but were also profitable; the fish were split open, cured and preserved in his presence in the picture, and formed a reserve to which he could turn when he was tired of game or meat." "Meanwhile half naked dancing girls turned and twisted on the wall in their amorous dance, like the almehs of our day; flutes trilled, tambourines boomed. The harpist invited the dead master and the survivors to 'spend a happy day,' for nothing endures in this world and 'bodies are born only to live while the gods decree.'" Such is the life M. Maspero draws from the pictures on the Theban tombs.

Equally interesting is his account of the migration of the souls. The Egyptians believed that they were obliged to leave the Valley of the Nile by a road to the west of Abydos. They made their way through a gorge in the Libyan Mountains, first to the Great Oasis and then to the slopes of the western mountain to the point where the Boat of the Sun penetrates the caves of darkness. They passed from their tomb to the entrance of the gorge and thence into the other world with their servants, herds and provisions. To make easier the voyage by water little boats of painted wood fully equipped were placed beside the coffins. Every year on the festivals of the dead a fresh provision of corn, beasts and servants was despatched to them in the other world. A miniature boat was equipped, the sails hoisted and, after prayers had been said, it was sent down to Abydos with its cargo and the news of what had happened to the family during the year.

The discoveries at Tell el Armarna give M. Maspero the opportunity for a brilliant description of the sudden rise of a new city at a Pharaoh's caprice, of its splendor and of its rapid decay as soon as he dies. He speaks generously of the discoveries of other explorers like Mr. Naville and Mr. Theodore Davis; full recognition of the services of others is unfortunately not the general rule among archæologists. A whole encyclopædia of folklore is compressed into the entertaining chapter on "Belief in Lucky and Unlucky Days." No side of Egyptian life is left untouched. It will be interesting to dwell on some topics that are perhaps remote from the usual conception of scientific research.

Nothing is too low for the archæologist; he has drawn treasures of information from the refuse heaps. M. Maspero shows how even the pest who scribbles on walls and monuments has his uses. He points out that the scrawls left by Bonaparte's men a century ago are historical proof of the extent of French conquest. In the pyramid at Meydoum, which all thought to be untouched, the first thing M. Maspero saw was the name of a scribe, Sokari, written in ink on the ledge of the door. It had been done in the XVIIIth dynasty, more than 2,000 years after the pyramid was built. He and his companions had visited the tomb of King Snofroui, as any tourist might to-day, and scribbled an enthusastic account of their emotions. Many of these scribblers were vain enough to boast about themselves. Others were particular about the date, and as M. Maspero points out, "the king and his buildings and his journeys and his victories would be unknown to us, if one of the scribes of his escort had not been seized with the passionate desire of writing at the sight of a wall placed well in the public view." "Thanks to them we glean dates, facts, royal cartouches everywhere; dynasties are put together again with what they teach us; piece by piece the history of Egypt is built up. They also add details about their own family, their own particular destiny, the reason of their going there, and that reason is often extraordinary."

It requires imagination to connect love with Egyptian mummies, yet little that is new will be discovered in the examples of love poetry given by M. Maspero. In the poems the lover and his mistress are designated as brother and sister. The lover exclaims: "Oh, that I were her black slave, she who is always with her! I should see all the beauty of her body!" And further: "When I see my sister coming my heart beats fast, my arms open to enfold her; my heart rejoices with everlasting joy when my lady arrives. If she embraces me and her arms open for me, it is as if I were anointed with the perfumes of Arabia, with the sweetest odors! If she kisses me with her half opened lips I am intoxicated without need of beer." The lady on the other hand expresses herself as follows: "The voice of the turtle dove is heard; here is the dawn, and weary as I am where shall I go? Not so, my beauteous bird! While you disputed with me I found my brother in his bed, and my heart more joyful than can be expressed, for I shall never leave him more, but, hand in hand, I shall go with him through all the beautiful places; he makes me the first of women, he who does makes glad my heart."

The London Society Man.

In spite of its topographical title, *Piccadilly to Pall Mall* (E. P. Dutton & Co.) is not one of those compounds of guide book and history where a cicerone leads you about a neighborhood and revives the past upon the original scenes. The title is mildly figurative, alluding to the fact that this district of the "West End" belongs or did belong especially to the man of fashion. Inside of the quadrilateral bounded by Piccadilly, Pall Mall, St. James's street and Waterloo place there used to be almost a law of exclusion against the other sex. With the exception of some family residences on St. James's Square it was given up to men's clubs, men's chambers and men's furnishers of various kinds; there was practically not a store in it which catered for women or a lodging house which would receive them. It was the London stronghold of the Englishman of the well to do class, and to him and his doings, though not necessarily confined to this quadrilateral, the book is mostly devoted. Women appear in it occasionally, and society generally is discussed here and there, but the man of fashion is the main subject.

It is a somewhat vague, indefinite subject, and the authors, Mr. RALPH NEVILL and Mr. CHARLES EDWARD JERNINGHAM, have attacked it in a loose, easygoing way. The book has no table of contents, and though it runs to more than 300 pages it is not divided into chapters but is in sections without headlines. Indeed, in many of the sections the material jumbled together haphazard is so miscellaneous that no headline could sum it up. On almost every page one has to leap from one topic to another which may have some connection in the authors' minds but has none visible to the reader. This jumpy method has an attractive briskness for a while, but it becomes wearisome, and the opening part of the book seemed to us much better than the second half, without perhaps being so in fact. One of the authors, Mr. Jerningham, is well known under the pseudonym of "Marmaduke" as a clever writer of "society paragraphs" in weekly journals, and the book is composed, we should say, on the paragraph model. One of "Marmaduke's" columns at a time makes good reading, but a hundred massed together are overwhelming. He would advise us perhaps to take the book piecemeal, and it would be good advice.

However, taking the work as it stands it ranks pretty high in the gossiping class. Between them our authors have a longish memory as well as a "live" contact with present conditions. They are rich in stories and personal reminiscences, beginning with the '70s—some from still further back—and ending with last year. It would be unreasonable to expect all of these to be unpublished, but a good many are at least unhackneyed, and they are told concisely and agreeably, even if they do not always illustrate the point intended. The courtly wit and grace of an elder generation hardly seem to shine forth from this anecdote of Lord Houghton, of whose nature we hear "the keynote was polish": "A certain lady remarked one day at dinner, 'When I was young half the men in London were at my feet.' 'Really?' inquired Lord Houghton. 'Were they chiropodists?'" But, then, your true Englishman was always intolerant of a polish which could not extend itself to plain speaking—of the French polish, for instance, which is more particularly adapted to smooth surfaces.

Our authors remark that though "a large proportion of the real aristocracy of England affect to ignore the increasing social power of foreign financiers there is no doubt that the West End of London to-day is to a great extent dominated by people most of whose immediate forbears would not have been allowed to black the boots of the old English aristocracy of the past. The old families of England meanwhile have sunk into comparative obscurity, for the most part distanced in the race for wealth. What is called society to-day is largely composed of people whose connection with the British Isles is of quite recent date; not a few indeed can hardly speak the language of the race which to some extent they have succeeded in dominating."

There are of course plenty of ridiculous stories to tell about these social conquerors: "A curious thing about them is that sometimes part of the family is in society and part of it out—some being British and others foreign. A rich Anglicized financier having purchased a country estate, some neighbors who came to pay a rather dilatory call found in place of the new squire his brother. Being unaware that he was not the owner of the house, they began to apologize for not having called before. 'Pray don't apologize!' he replied. 'I see you are taking me for my brother, the Englishman. As a matter of fact I am only the damned German!'" "One of these gentry having remarked after a disappointing day's shooting that at a previous shoot good sport had been enjoyed and he had sent away over four hundred 'braces,' a guest promptly rejoined 'In that case, my dear fellow, you can hardly expect to keep up your bags.'" The writers admit, however, that "many of these people are possessed of good qualities, the majority being hospitable and generous on occasion; against not a few of them indeed nothing can be said—and they are always unswerving advocates of 'Britain for the British.'"

It is probable that this foreign domination is exaggerated here, though of course English life generally has become a great deal more cosmopolitan than it used to be. London was until recently one of the most uncomfortable cities in the world for foreigners. Their presence was apparently not desired, for hardly any accommodation was offered them. The hotels were wretched and the restaurants worse. Now that is changed. The opening of the Savoy Hotel in 1887 is taken by our authors as marking the beginning of the new era, and since then the "palatial hotel" has multiplied rapidly. The writers admit that the disappearance of the old English inn "calls for but few regrets. An Old World air of quaintness certainly hung about it, but this was but poor compensation for the dinginess and dirt which were its occasional concomitants. The Old World English waiter, though a character, was as a rule not a temperate one." Tolerable restaurants came in about the same time; "the horrible old English coffee room with its wretched service, cookery and appointments was practically annihilated in the '80s." The writers ascribe this "veritable revolution" to Mr. Ritz, as regards both hotels and restaurants, and they remark that among the chief causes of the success of this "Napoleon among hotel keepers" was his adopting the maxim "Le client n'a jamais tort." Among Britons, who are reputed to be "born grumblers," a conciliatory policy of receiving any and every complaint with the utmost respect might well go far. They also mention that the introduction of first class restaurants has greatly improved the cookery in private houses. "Some thirty years ago the average dinner to be obtained at the best of London houses was a pretentious atrocity concocted of solid meat, suet, dripping and other accompaniments almost as appalling to dwell upon, relieved by desserts where crackers, sugared apricots and dried raisins played an important and monotonous part. Such atrocities are now happily relegated to the past."

The cosmopolitan expansion illustrated by this case has meant a very general loss of insularity, of the peculiar English quality of life. Our authors remark about the turf that "the racing of the past was more or less a family party"—it is such no longer. The disappearance of this "family party" equality which may be noted in many cases is naturally not regarded by the natives as an unmixed blessing. It may be remembered that some officials of the Henley regatta have been loud in deploring it. Something genially domestic and characteristic must needs depart with it. Local color is sadly diluted. The change is illustrated by a trifling matter brought up in this book for the sake of anecdotes—the decay of practical joking in society. The habit seems to have prevailed among women as well as men in forms so active as to merit the name of "hazing"; but of course that kind of thing could not go on except in a "family party." In circles less select but still inside of the "family" the dilution shows itself, for instance in the disappearance of the genuine English "music hall" with its "chairman" and its vigorous répertoire of topical songs, which existed till the '80s, and often gave a clear reflection of local conditions; whereas the "palace of varieties" which has superseded it reflects only a vapid internationalism.

The effects of commercialization would seem to have been still more general than those of cosmopolitanism. Our authors at least push them very far. "In the daytime the West End is in the City; at night the City is in the West End, which in a great measure belongs to it. It was in the early '70s that certain enterprising social lambs, having strayed from the Mayfair fold, first began to reconnoitre those financial fields which lie to the east of Temple Bar. The introduction of competitive examinations [i. e., the checking of the English "spoils system"] was largely responsible for this. More lambs duly imitated their example, and presently almost the whole flock followed in their wake. To-day the young men of 'Society' enter quite seriously into the struggle for existence. Many a 'West End club became little better than a Belgravian Stock Exchange. Vanished is the day when the gilded youth was wont on a sunny morning to disport himself gayly in Hyde Park, untroubled by 'rise and fall.' The wheel of fortune has turned. To-day it is the astute financial gentleman who peacocks in the park at a time when the deluded lambs are toiling in dim offices or hurrying with careworn faces along the arid thoroughfares hard by Threadneedle street."

Indeed, one might almost suppose from this book that London society is as much commercialized as that of New York. The man of pleasure, we hear, has practically ceased to exist, and the fashionable world turned from frivolity to seriousness and adopted "business" as its watchword. The dandy too is reported to have gone, his last manifestation having been in the "Crutch and Toothpick Brigade" of thirty years ago. There has been a remarkable shrinkage, it seems, in betting on the turf, "the speculative tendencies of those who delight to risk large sums having been diverted to the Stock Exchange." For the same reason there is at the present day practically no gambling at the clubs. "Bridge for moderate points is the only game which is at all generally played. The day of high play at cards, such as a hundred years ago prevailed at Brooks's and White's, are probably gone forever. The spirit of the age is now unfavorable to gambling at cards, speculation being a more discreet method." Moreover, the peculiar prestige which hung about the "typical sportsman" in old days has departed in these more businesslike times, and the energetic class that made sport the main pursuit of life is virtually extinct. Our authors regret the passing of those "essentially English" individuals—"bluff, kind hearted and genuine, whose peculiar ideals were perhaps a great deal more healthy than those popular with a less healthy generation."

Club life has been notably transformed even within the last ten years, a natural result of the diminution of the "leisured class." The "family party" quality has died out in them. "Formerly men went to their clubs to seek company, whereas to-day many go to avoid it." They use them merely for convenience, as places in which to see people on business, &c. All the old queer customs are being dropped. "It was not the thing to acknowledge any one from a club window, while to raise the hat to a passing lady was a breach of club usage. The great majority of members lunched in the coffee room with their hats on, while in certain clubs evening dress at dinner was practically compulsory, a small apartment being reserved for members dining in day clothes."

The number of clubs has vastly increased; a hundred have been founded within the last thirty years, and there are now more than 200,000 club members whereas at the beginning of the nineteenth century there were not 1,300; but what they have gained in extension they have lost in intensity of life. The Athenæum, Turf and Travellers are almost the only clubs, according to these writers which have retained their old standards. At the Travellers in recent years Mr. Cecil Rhodes, the late Lord Sherbrooke the late Lord Lytton, Lord Rosebery and Lord Randolph Churchill were blackballed for one reason or another. Brooks's is still a wealthy institution; it is said that should it be dissolved each member would be entitled to £300. Among others of the old régime Boodle's after nearly collapsing recently has been revived by the introduction of a more businesslike management. Though so dignified an institution, it was owned by a private individual, a Mr. Gayner, who allowed members unlimited credit; at his death there was owing to him more than £10,000. A special clause in his will stated that no member of Boodle's was to be asked for money"—another symptom of the pre-commercial age which is hardly expected to return.

In speaking of the passing of the English leisured class the writers are of course contrasting the present with a background which has no counterpart in America. It is only in relation to it that the absorption of fashionable London in business can seem at all complete.

JAPANESE GARDENS

Rare in This Country—Japs Make Them in Saucers.

The number of the American Japanese gardens that are really worthy of the name is so small that a writer in *Country Life in America* says he is inclined to believe that one could count them over on the fingers of one hand and do none an injustice. One of these few, according to the same writer, is that of John S. Bradstreet in Minneapolis. It is very small—the whole being contained within a circle 100 feet in diameter.

To the Western mind probably the most striking thing about a Japanese garden is the insignificant part played by flowers. The Japs are most fastidious in their appreciation of floral beauty; they disdain such blatant display as is seen in the rose or the lily, but they do admire our own much underrated morning glory, together with the iris, the peony, the wistaria, the lotus and the chrysanthemum. In their gardens, however, they depend for their best effects on gnarled old pines and cedars, on curiously marked rocks covered with velvety moss and lichens.

The perfection of the Japanese art of garden making is shown even in the tiny gardens they lay out, or rather construct, with sand, moss, pebbles and twigs in saucers. Of these dish gardens, as they are called, there is an annual competitive exhibition in Kioto, where statesmen, poets, merchants and princes discuss the merits of the designs submitted and vote for the best.

Water is a prominent feature of every garden where it is available, always giving a chance for islands and bridges, no matter how small. Yet the Jap's conventional training is so strong that the sand, pebbles and curiously marked rocks are perfectly acceptable as substitutes for water. The dried up bed of a stream asks no pardon as a makeshift; its carefully hollowed form, marked with water worn stones that have been brought together like jewels, is often more a work of art than the stream itself.

This extravagance in the collecting of curiously marked garden stones is a national trait. Many a garden is left unfinished for years until the one stone can be found that will satisfactorily express the required religious or poetical feeling.

The proper placing of these stones is a most intricate art. There is the "guardian stone," the most important in the near distance, always a part of the ridge over which the water falls.

The names alone of the stones in common use would fill a book. Chief among them are the "stone of worship," marking the point from which the best general view of the garden is to be had; the "stone of the two deities"; "the sentinel stone," marking an outlook along the water's edge; "the wave receiving stone," lying half hidden in the current; "the seagull resting stone," on a stone beach. And throughout the garden, marking the paths are the stepping stones, all having definite shapes and dimensions and arranged in a studied irregularity that assures comfort in walking and beauty in composition.

The bridges of the Japanese gardener hold a very high place in his affections. Give him the smallest of rivulets to work with and he will have a pond with an island or two in it—anything as an excuse for a few bridges.

The more elaborate bridges are semicircular, gaining, because of their reflections, the name of moon bridges. It is the smaller sort, though, that is usually found—a couple of parallel slabs of limestone or granite, lapping ends in the middle of the stream. Still another type has a floor of beaten earth on a framework of fagots and bamboo.

A "resting shed" is a feature of all but the very small gardens and is placed in a position which will always give an opportunity for a pleasing view of the garden as a whole or some particular feature of it. Another typical feature is the "water basin," always placed within easy reach of the veranda and supplied with a long handle dipper. The basin is often sheltered by a tiny ornamental roof of its own.

The stone lanterns are employed merely as ornaments, and the rules governing their position are as varied as those applying to the other stones. They are valued chiefly for their age and their coating of velvety moss. It is only in the temple grounds that one occasionally finds a lamp in the firebox. There are two main types of lanterns—"standard" and the "legged" or "snow scene."

The former are perhaps better known in this country—a cylindrical shaft on a hexagonal base and bearing a hexagonal head ending in a heavy stone cap with corner scrolls and a pointed ball top. Two of the six sides of the head are hollowed out, while the remaining four bear the carven images of the stag, a doe, the sun and the moon.

The snow scene type rests upon a low four legged curved base, and is capped by a mushroom top in two or more parts, which owes its popularity largely to its habit of retaining a covering of snow.

No Japanese garden is complete without a provision for the tea ceremony. Sometimes the resting shed is combined with it, but usually there is a separate structure, always of the simplest possible type and materials. It is a tradition faithfully kept that the surroundings of the tea house shall be rather rough and simple, lest they detract from the hallowed rites of the ceremony itself.