seven cars, the expedition had the great advantage of speed over the previous geological explorers who crossed the Desert with camels only. The geologists and palæontologists of the party, Granger, Berkey, and Morris, with two field assistants, also had the advantage of prolonged experience in the field formations of the western United States, which, between the 50th and 40th parallels of latitude, present conditions remarkably similar to those found in the Desert of Gobi. Raphael Pumpelly in 1864, Ferdinand von Richthofen in 1872, and V. A. Obruchev in 1909, found no fossils, except the single rhinoceros-tooth brought back by Obruchev; and other geologists traversing this region have thought that there were no fossils to be found.

As to geology, the expeditions beginning on April 15, 1922, 260 miles north-west of Kalgan, and encircling in 1922, 1923, and 1925, the entire Gobi district in a 3000-mile radius, discovered no fewer than twenty-three distinct geological formations extending downwards from Lower Pleistocene time into Lower Cretaceous and Upper Jurassic. These have a thickness varying from 50 to 3000 feet, and were deposited either in the great flood-plains of ancient rivers, or in broad river-valleys, or at the base of ancient mountain-chains, or in the torrents of great sandstorms such as the Djadokhta, testifying to the secular vicissitudes of climate, mostly of rainfall, terminating with the pluvial period of the Ice Age, followed by a long period of secular desiccation.

Some of these formations prove to be closely contemporaneous with the Lower Cretaceous Wealden of western Europe, owing to the presence of large iguanodonts, equalling the famous *I. bernissartiensis* of Belgium in size. The oldest are as early as the Oxfordian and Purbeck of Upper Jurassic times. The climax of reptilian life is reached in the marvellous sand-swept deinosaur breeding-grounds (Djadokta formation) of Middle Cretaceous time, where nests of fossil eggs and innumerable skulls and skeletons of Protoceratops are found in almost perfect preservation. This is the richest deinosaur deposit thus far discovered in Eurasia.

As to the fifteen succeeding Tertiary formations, they compose so many unbroken chapters of the history of Mongolian life as extend from the basal Eocene Gashato to Upper Oligocene time, where the giant Baluchitherium occurs, as discovered also in Baluchistan by Cooper of Cambridge, and in Chinese Turkestan by Borissiak of Moscow. The Miocene and the Pliocene periods are represented by four formations.

Thus the scientific staff of the Expedition, between the years 1922 and 1925, has interpreted one of the most typically desert regions of the entire world by means of the twin sciences of palæontology and geology, and the wilderness of Mongolia now blossoms forth with its glorious story of prehistoric life, as the homeland of the greater number of known upland terrestrial vertebrates.

STONE AGE, TERTIARY, AND CRETACEOUS FORMATIONS OF MONGOLIA, IN DESCENDING ORDER.

Regions.	*Formations and Thickness estimated in feet.*		*Probable or estimated Geological Age.*	*Human Culture, Mammalian and Reptilian Life-zones.*
Altai Piedmont	Shabarakh Usu	50+	Upper Palæolithic	? Azilian-Campignian.
„ „	Orok Nor	5–40	Middle Palæolithic	? Aurignacian-Mousterian.
			Lower Palæolithic	? Acheulean or ? Eolithic.
Orok Nor basin	Khunuk	27–120	Lower Pleistocene	? Equus, ? Mastodon.
Tsagan Nor basin	Tsagan Nuru	50±	Lower Pleistocene	? Equus, ? Struthiolithus.
	Gochu	1000±		
Eastern Altai Mts.	Hung Kureh	1000	Upper Pliocene to Lower Pleistocene	Hipparion. Camelus zone.
Iren Dabasu basin	Pang Kiang	500	Miocene; age doubtful	Rodents. ? Ochotoma.
Eastern Altai Mts.	Loh	100–1000	Middle Miocene	Mastodon (Serridentinus) zone.
„ „ „	Hsanda Gol	3000	Middle to Upper Oligocene	*Baluchitherium grangeri* zone.
Iren Dabasu basin	Houldjin	30–50	„ „ „	„ „ „
Orok Nor basin	Elegen	0–200	„ „ „	? Mammals undetermined.
Uliassutai Trail	Baron Sog	5–30	Middle Oligocene	? Large Titanotheres.
„ „	Ulan Gochu	2–60	Lower Oligocene	? „ „
Uliassutai Trail	Ardyn Obo	500	„ „	*Brontops gobiensis* zone.
„ „	Shara Murun	200±	Summit of Eocene	*Protitanotherium mongoliense* zone. *Amynodon mongoliensis.*
Shara Murun basin	Tukhum	50+	Upper Eocene	Titanotheres abundant.
Iren Dabasu basin	Irdin Manha	? 100	„ „	Eudeinoceras, Andrewsarchus zone.
„ „ „	Arshanto	40–100	? Middle Eocene	Lophiodonts-Schlosseria zone.
Kholobolchi Nor basin	Kholobolchi	1000±	? Lower Eocene	Coryphodon zone.
Eastern Altai Mts.	Gashato	300	Basal Eocene (Palæocene)	Prodeinoceras zone. Palæostylops.
Eastern Altai Mts.	Djadokhta	500	Middle Cretaceous	Protoceratops andrewsi zone.
N.-E. of Shabarakh Usu	Dohoin Usu	200±		Deinosauria, Crocodilia, Chelonia zone.
Iren Dabasu basin	Iren Dabasu	180	Lower Cretaceous. ? Wealden	Iguanodont. Ornithomimidæ.
Oshih basin	Ashile	2000	Upper Jurassic	Psittacosaurus zone. Asiatosaurus. Prodeinodon.
Tsagan Nor basin	Ondai Sair	500	„ „	Protiguanodon zone.

The British Association at Oxford.

BY the time that the present issue of NATURE is in the readers' hands, the meeting of the British Association for the Advancement of Science will be in full progress. The Sheldonian Theatre, where Mr. Disraeli made the celebrated announcement that he was "on the side of the angels," will have been the scene of yet another important gathering; and the chief social events of the meeting, namely, the receptions by the Vice-Chancellor, the Mayor, and the Dean, Canons, and students of Christ Church, will have taken place at the Examination Schools, the Town Hall, and Wolsey's great foundation respectively.

Among the institutions of Oxford which combine historical with scientific interest, not least must be reckoned the Botanic Garden on the south side of the High Street, opposite Magdalen College. This, the earliest botanic garden now existing in England, was founded by Henry, Lord Danvers, in 1621, and was intended by him to be put in the charge of John Tradescant, gardener to King Charles I., who, however, died before the appointment took effect. The scientific movement in Oxford, which began in the days of the Commonwealth under the auspices of John Wilkins and his associates, and culminated in the establishment of the Royal Society soon after the Restoration, was carried on by Elias Ashmole. It was to Ashmole that the younger Tradescant bequeathed the natural history and antiquarian collection begun by his father, and to Ashmole himself the University was indebted for the gift of the Tradescant collections, to which that industrious collector had made large and important additions.

It was not until 1669 that Lord Danby's 'physick garden,' which had failed to secure the services of either Tradescant, was equipped with a regular professor. This was Dr. Robert Morison, who delivered courses of lectures, one of which was attended in 1675 by John Evelyn. A great benefactor to the establishment was Dr. William Sherard, who left a permanent endowment for the professorship of botany. It was Sherard who invited the famous Dillenius to take up his residence in England, and provided, by the terms of his will, that Dillenius should be the first occupant of the Sherardian chair. Linnæus, who visited Oxford in 1736, was entertained by the professor, and endeavoured, though without success, to convert him to his new system of classification. In spite of their inability to see eye to eye in botanical matters, the two men formed the highest opinion of each other's merits. The Oxford professor, for his part, "detained Linnæus for a month without giving him an hour to himself the whole day long; and at last took leave of him with tears in his eyes, after having given him the choice of living with him till his death, as the salary of the professorship was sufficient for them both." The Swedish botanist declined this generous offer, but after his return home wrote, "In Anglia nullus est qui genera curet vel intelligat praeterquam Dillenius," and moreover, "founded the genus Dillenia, of all plants the most distinguished for the beauty of its flower and fruit, like Dillenius among botanists" (Gunther, quoting Claridge Druce).

The next professor, Dr. Humphrey Sibthorpe, is said to have given only one lecture, and that a bad one; but his son and successor John was a man of different stamp. Besides projecting and partly carrying out a great work on the flora of Greece, he founded and endowed the professorship of rural economy which still exists.

A new epoch of efficiency and activity dawned with the appointment of Dr. Daubeny in 1834. The energy and persistence of the new professor speedily resulted in considerable additions to the buildings and in extensive improvements in the usefulness and attractiveness of the garden. The reforms set on foot by Daubeny have been continued and developed by his successors, notably by Bayley Balfour, Sidney Vines, and the present occupant of the chair of botany, Sir Frederick Keeble.

Part of the extensive scheme devised by Acland for bringing together in one place all the various departments of natural science, with the view of "the development of a complete national education in science," involved the removal of the lecture-rooms, laboratories, and other appliances for botanical study to the neighbourhood of the new museum, while a 'garden of instruction,' some five acres in extent, would have been established in the Parks. A clever skit by Mr. Edward Chapman, of Magdalen College, cast ridicule on the scheme and did much to cause its abandonment. Many, however, will still think that the plan had great advantages; and it is to be observed that it has since been found quite impossible to carry out within the precincts of the ancient garden all the botanical teaching which has now become necessary.

A very attractive feature of the present meeting will be the opportunity of visiting, by the kindness respectively of Mrs. G. H. Morrell, Sir Arthur Evans, and Mr. Henry Balfour, their exceptionally fine gardens and grounds in the immediate neighbourhood of Oxford. The grounds of Headington Hill Hall, the residence of Mrs. Morrell, are far-famed for their beauty, their extent, and their picturesque situation on the side of the hill overlooking the city. From them can be seen the best views of the University and College buildings to be had anywhere. Youlbury (Sir Arthur Evans) and Langley Lodge (Mr. H. Balfour) have also their own points of exceptional beauty and interest. As an example of a city garden, that of Exeter College, with its boundary formed by the Divinity School and the library of Humphrey Duke of Gloucester, cannot easily be surpassed. The party to be given in these pleasant surroundings by the Rector and Fellows of the College is certain to be highly appreciated by their guests.

The conversaziones to be held at the Ashmolean and University Museums on the evening of August 10 will end the public entertainments of the present meeting. Both are likely to be especially attractive to the devotees of the arts and sciences respectively. The short lectures, demonstrations, and exhibits at the University Museum have been chiefly organised by members of the Junior Scientific Society of the University, an association the zeal and activity of which are among the most hopeful signs of present-day life in Oxford.

F. A. D.

Dr. D. H. Scott writes: "In addition to the list given in NATURE of July 31 of distinguished guests from abroad attending the Oxford meeting of the British Association, may I mention that we are also expecting Dr. R. Kräusel, of Frankfurt? In conjunction with Dr. H. Weyland, Dr. Kräusel has made important discoveries in the Middle Devonian flora, showing that the plants of that early period were considerably more advanced than had been realised before. He is giving an account of his results in the Section of Botany."