restoring the skull was strongly insisted upon by the author of the paper, who, I believe, has no official connexion with the Indian Museum at Calcutta.

I see the paper had been in the possession of the Society since the 10th of September, 1870; so that there was plenty of time for the Secretary of the Society to have returned it to its author, to be at least modified in the language in which he makes the libellous statement, which I believe is solely the offspring of a pernicious personal ill-will: or, if the Secretary did not like to do that, he might have made inquiries as to the accuracy of the statement, and I think that that would easily have proved to him that there was not the slightest foundation for the abominable accusation which Mr. Theobald has made, or even a just ground for suspicion. But even if it should finally prove (as I do not believe) that the skull belongs to a skeleton in the Calcutta Museum, it had doubtless been in Dr. Falconer's possession for many years, and before he is charged with "removing" it, it ought to be proved that it could not have come into his possession in a legitimate manner, when the Museum was in the possession of the Asiatic Society.

The character of the Society is not elevated by its being made the vehicle of publishing an atrocious libel on the character of a man of great scientific reputation, who has been some time dead, and who, I believe, was a Fellow of the Society. I never recollect in a long life such a misdirection of the objects of a scientific institution.—My lord and gentlemen, I remain your former colleague and obedient servant, (Signed) JOHN E. GRAY.

To the President and Council of the Zoological Society.

The skull I described as Testudo Falconeri was received by the British Museum on the 12th February, 1868, with the skulls of twelve other Indian tortoises, and the skeleton of Testudo Græca, from Mr. Falconer, as forming part of the collection of his brother. The skull is in a most perfect condition, as if it had been prepared from a head carefully severed from the body; it has no hole for a wire, or other holes for wires, which skulls generally have which are taken from a stuffed specimen, or from a mounted skeleton.

Mr. Blyth, in May, 1848, notices the receipt by the Asiatic Society of a living specimen of the large Tenasserim land tortoise, identical in species with an individual formerly sent from Arracan by Capt. Phayre. (Journal Asiatic Society of Bengal, xvii., p. 560.) In the same Journal for 1853 he describes "the great Burmese land tortoise," under the name of Testudo Phayrei, from specimens presented by Capt. Phayre, which were nearly perfect, as he very shortly describes most parts of the animal and shell. In the Proceedings of the Zoological Society for 1852, p. 133, I described a genus Manouria (fusca), "which is peculiar for the form of the pectoral plate, which at first sight might be mistaken for a large axillary plate, if that plate were not also present," which was described from an imperfect thorax, which was received from the Zoological Society, and which had been examined by M. Bibron, and regarded by him as a small specimen of Testudo indica.

Mr. Blyth's short description of Testudo Phayrei very well fits the Manouria fusca; and Mr. Blyth, when he saw it in the Museum, the more perfect specimen of Manouria fusca which we afterwards obtained, identified it with his Testudo Phayrei. It is to be observed that Mr. Blyth in his description does not mention the peculiar form and position of the pectoral plate; probably he did not observe it, which was certainly the case with M. Bibron when he examined the original specimen in the Museum of the Zoological Society, or he would not have regarded it as a specimen of Testudo indica, and with Dr. Cantor when he regarded his specimen as the same as Geoemys spinosa; for both these animals have the pectoral plates of the normal form and position. We are informed by Mr. Blyth, in the Museum of the Asiatic Society of Calcutta, were before 1866, when he examined the collection, reduced to "a few fragments"; so that we have not the means

now of seeing if it possesses this character, which I have no doubt it did possess, as Mr. Blyth made no observation when I showed him the character on which the genus was founded. Mr. Theobald observes, speaking of this animal, "This species I have never met with, but two specimens were forwarded to Mr. Blyth by Lieut.-Col. Phayre, either from Arakan, or, more probably, Maulmain, of which a few fragments alone remain in the Asiatic Society's Museum in Calcutta." And he further observes, in another place: "The débris of the specimen formerly exhibited as a stuffed animal, but now only in fragments. Head, legs, &c. &c. missing." This deterioration of the specimens easily occurs in the Indian climate, without they are very carefully preserved in metal or glass cases.

Dr. Cantor, who had a bad specimen of Manouria

Dr. Cantor, who had a bad specimen of Manouria fusca, which he obtained from the Penang Hills, called it Geoemyda spinosa, which is a very different animal, but the same as Testudo emys of S. Müller and the Testudo emydoides of Dumeril and Bibron.

Dr. Gunther, in his 'Reptiles of British India,' perhaps misled by Cantor's specimen, considers Testudo emys as a synonym of Manouria fusca, and Mr. Theobald in his Catalogue adopts this mistake,

and calls the animal Manouria emys. When I described [the skull of Testudo Falconeri, I observed the skull of Manouria fusca, which has somewhat the general form of that of Testudo Falconeri, but the latter differs in having a broad and well-developed zygomaticarch, "the arch in Manou-ria fusca being slender and weak;" (Suppl. Cat. Shield Rept. in B.M. p. 7). The skull of Geoemyda spinosa = Testudo emys, which has been regarded as a synonym of Manouria fusca, is entirely destitute of any zygomatic arch over the temporal muscle; so that there can be no doubt that the skulls of Testudo Falconeri, Manouria fusca, and Geoemys spinosa belong to very different animals, and as I have proved the identity, on Mr. Blyth's own authority, of Manouria fusca with Testudo Phayrei, it is utterly impossible that Dr. Falconer's skull, which I described, could have been "removed" from the typical specimen of Testudo Phayrei in the Museum of the Asiatic Society, which has lately become the Imperial Indian Museum. Indeed, the skull does not agree with the measurements given by Blyth for the head of that animal.

Should Mr. Theobald be able to prove that the skull described as Testudo Falconeri belonged to the animal which Mr. Blyth described as Testudo Phayrei (which is what I suppose he wants to prove), and which I feel that I have shown cannot be the case, I should only have erred in considering Testudo Phayrei the same as Manouria fusca in company with Mr. Blyth, the original describer of the species, Dr. Günther, and Mr. Theobald himself

It appears very probable that specimens belonging to the Museum of the Asiatic Society of Calcutta sometimes come out of that collection, it may be by exchange or in some other way. In 1867, Mr. William Theobald came to London, and brought with him a large collection of reptiles from Pegu, and various parts of the East Indian continent.

He gave two or three specimens of tortoises (Batagur) to the British Museum, and his type-specimen of Trionyx Phayrei and other tortoises to the Bristol Museum. He sold the other reptiles to Mr. Cutter, a dealer in Zoological specimens in Great Russell Street.

The British Museum purchased of Mr. Cutter all the specimens of Mr. Theobald's collection that were required for this institution. On a recent examination of the specimens purchased, there were found among them two lizards (Mabouia scutata and Sphenocephalus tridactylus), which Dr. Günther knows and Mr. Jerdon believes are types of the species which formed part of the collection of the Calcutta Museum. I do not believe that Mr. Theobald did not come into the possession of these specimens in a perfectly legitimate manner, as otherwise he would not have sold them; and if the skull of Testudo Falconeri was ever in the Calcutta Museum, (which there is no ground for

believing), it no doubt came into Dr. Falconers hands in the same way, and was legitimately in his possession.

HÁBRAN EL AWÁMÍD AND THE DAMASCUS SWAMPA Damascus, 1870.

I HAVE read, with no little interest, the correspon dence which has passed between Mr. Freshield and the Rev. Mr. Porter; and it is my misfortune, not my fault, that this small contribution comes so late into the field. A few more years, perhaps, will make the telegram take the place of the post, even in such a case as this.

My conviction is, that Messrs. Freshfield and Fergusson, when assigning a recent origin to the Hauranitic ruins, are thoroughly justified, if we assume the "early date" to embrace the classical epoch, which admitted Greek and Roman inscriptions. We cannot, in these days, assimilate the Anakim, Rephaim, and Zamzummim to the Titans, Adamastors, and Brobdingnagians, by translating the words (physical) "giants." They may have averaged a Patagonian stature; but man's skeleton is as unfit for 9-10 feet of height as his digestive organs are to last from 600 to 930 (modern solar) years. All the "giants" personally known have been, with one exception, mild and melancholy men, afflicted with weak knees, and often with chronic diarrhæs. When skulls and bones of the Anakim, et cetera, shall have been produced and submitted to competent scientific anthorities, it will be time to believe that there were (physical) giants in the world.

The process of deducing the antiquity of a people from its "primæval architecture," or of establishing the abnormal stature of a race from the size of its dwelling-places, is hardly admissible, or worthy of a modern observer. The old Conquistadores of Bolivia, seeing the native huts provided with pigmy doors, called the tribe Chiquitos, whereas the "little ones" proved to average above the ordinary stature of the so-called "Red man." But to argue thus in the present age of the world is an anachronism. We want material proof to wait upon

I need hardly quote in favour of the Ghassanian origin of the "Giant Cities of Bashan" the authority of Dr. Wetzstein, formerly H.B.M. Consul, Damascus. This Himyaritic emigration, like the undulatory theory of light, abundantly accounts for a multitude of isolated facts. When Mr. Porter writes that Herr Wetzstein studiously ignores the labours of his immediate predecessors (he has mentioned both Mr. Porter and Mr. Cyril Graham, in pp. 83 and 137), and adds little, if anything, to the information gleaned by him, it would seem as though the abolition of Og and his architecture, and a certain regard to fact somewhat detrimental to prophecy, as explained by the modern prophet, have impressed the author of 'Five Years in Damascus' unfavourably in the matter of the Prussian (I may now say German) traveller's ability, and even literary fairness, we at once join issue. After painfully sifting a huge mass of modern rubbish, of irrelevant matter, of little-learned disquisition, and of what has been called "hashed Bible" -a late book is half-stuffed with quotations, when simple references would everywhere have sufficed. —I have found in the little 'Reisebericht' the greatest possible relief. My opinion of its scholarship is so high that my spare hours are devoted to translating and annotating it. Of course, it does not pretend to the grand views of Volney, still the very best guide to Syria; to the architectural acumen of Messrs. De Vogué and Fergusson, or to the scientific specialities of MM. Waddington, Lartet, and the late Duc de Luynes. But as far as it goes, the 'Reisebericht' contains more matter, especially in Scriptural exegesis, than many of our bulky double octavos.

The letter addressed (August 5) by my friend Dr. Beke to the Athenœum, calls for a few remarks. He is quite right in refusing to be "poohpoohed" by Murray. With Captain Wilson, R.A., I reserve judgment touching the identity of the Abramic Charran and Hárran el Awámíd. Time and distance (Gen. xxi. 23) are all in favour of Dr.

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Beke. The arguments against him have not been duly worked out. Nicolaus Damascenus is in the present day true, when he asserts that "the name of Abram is still famous in the country of Damas-My learned friend does not mention that the birthplace of El Khalil (Abraham) is shown at the village of Barzeh, about one and a half miles north of the Salihiyeh suburb, and opposite the Maarabeh gorge. Eliezer of Damascus proves that the city was then built, and could supply a "Kiatib" or secretary to the Syrian Emir; nor do we require to explain away the direct statement that he was "born in Abram's house" (Gen. xv. 28). In the village of Dinnah, we still find the name of Ishmael's fifth son. Mr. Macgregor is, I believe, quite right in connecting "Rebekah's well" with Abraham. Dr. Beke remarks, "the testimony of the inhabitants of Harran is of course valueless, except as demonstrating how early a local legend-or tradition, as it soon gets calledmay be originated." I have known the Harran well to be called Ibrahim's well by many Syrian Moslems, who have never visited Harran, and who certainly never heard of my learned friend's visit to it in 1861. Upon this point, however, I will collect further information, by consulting not only the Moslems, but the Jews of Damascus. In its middle age the well was evidently attached to the temple of the sun, whose finely cut basaltic columns still rise conspicuous from afar. The name Harrán el Awamid is not favourable to Dr. Beke's theory, proving that the place was so called after the foundation, and possibly after the ruin, of the classical temple. The descriptional epithet "of the columns," was evidently applied to distinguish it from another and an older Harran. The site of the little modern village shows no signs of past importance. And it is hard to suppose that Damascus and its environs, being known to the Hebrews as the Aram (uplands) Dammesek, another name Aram-naharaim (Mesopotamian upland) would be necessary for a region included in the same plain, and only some four hours' ride to the East. Moreover, Aram Naharaim is also known (Gen. xxiv. 10) by a second descriptive term, Padan (Paddan, whence the modern Arab "Feddan") Aram, the arable upland. The term "Aramite," being also used without any addition, to denote a dweller in Aram-naharaim, would suggest apparently a superiority for the latter over all other "Arams."

In December, 1869, having some business at Dhumayr with the English post to Baghdad, I resolved to visit the Diyara, or convents, lying to the East of the so-called "Lakes,"—ruins isolated from the world by Bedawi raids. M. de La Brulerie, a French gentleman collecting Coleoptera, and I struck from Dhumayr, the Darb el Ghazawat (Road of Razzias), to the horror of our small party. The robber tribes of Shtái and Ghizás, and sometimes the Hasaneh, have given to this thoroughfare its ill-omened name, and in April. 1870, the ruffians murdered a Fellah shortly before we passed to Jayrud en route to Palmyra. Of course we had Murray, whose map splits the Northern "Lake" into two distinct waters, under the names Bahrat el Sharkiyah (Eastern Tank), and Bahrat el Kibliyeh (Southern Tank). The epithets are quite unknown to the people, who call the swamp, from a neighbouring village, Bahrat el Utaybeh. Dr. Beke writes "Atebeh," Dr. Wetzstein (1860 M. Kiepert) "Ateben," and Van der Velde (2nd edit. 1865), "Atebeh." To my ears the initial ayn, sounded as if "moved" by a Dhammah, is just like the name of the robber Utaybah tribe, that fired upon our caravan near Meccah

On inspection, the "Lake" proved to be the dry bed of a swamp. We rode across the Bahrat el Utaybah, from the second or middle Dayr (Convent) to Harrán el Awamíd, both lying nearly on the same parallel, N. lat. 33° 30'; and during the whole day we did not see an inch of water. The early or autumnal rains of 1869 had almost entirely failed, and the lower Barradah River was exhausted by irrigation. We found few birds, no wild hog, empty shells and mud in rare places, though the people spoke of quagmires. We passed over the

shallow channel which evidently connects the two basins, and we could easily trace the water-line by the rushes that margin it, by the Tarfa (Tamarisk) on the higher levels. In abnormal floods the Utaybah would form a single sheet; usually it must be divided into two, and perhaps more, sections. The division is effected by an almost imperceptible rise of crumbling white and saltish earth, that shows signs of having been overflowed. The lands to the East, over which runs the Robber Road, are also at times liable to flood, and from the frequent basins and ledges, the people call them Arg el Tannúrín-land of forges. This formation extends two or three miles, varying with the quantity of water, to a "true coast" of basalt. The latter is four-sided, five-sided, sub-columnar, and ropy, like freshly poured-out treacle; it is rarely brown-red, mostly bright black, like fresh iron slag, where not covered with a grey-white lichen, which makes it from afar resemble limestone. This basaltic bed is the "Chebel," or westernmost edge of the volcanic floods which have been emitted by the Lejá, the Safá, and the Tulúl el Safá. The convents are built upon it and of it; they date, doubtless, from the days of the Benu Ghassan, and the climate has preserved even the colours applied to the plastered portions of the inner walls. All are illiterate, and are very ruinous, though the material is, of course, imperishable. The Central material is, of course, imperishable. Dayr has a fine sunken tank of cool basalt, with pilasters, for the supply of the holy men. I have attempted to persuade the authorities of Damascus that this place will afford an excellent outpost for cavalry, which, patrolling between the Hijáneh village, where there is a station, and Dhumayr, where there should be one, would soon abate the Bedawi nuisance.

On the next day we ascended the Tell Hijaneh, a little hill behind the village, and we saw the second "Salee," dry as its northern neighbour. Mr. Macgregor suggests that probably the Abana (Baradah) and Pharpar (Aawaj) do not flood or dry up together; but both are fed by the same rains and by the same snows. The eastern shore-line of the Hijaneh swamp being the same basaltic sheet, is as well traced as that of the Utaybah. I agree with Mr. Macgregor that Van der Velde, Petermann and Ritter represent bad, worse and worst. We did not visit "Bala" and "Brák."

I will conclude this long letter with a few words touching the arbitrary identification of Pharpar, or Pharphar, and Aawaj. The first glance at the terrain shows that the latter has not and never had any connexion with the Damascus plain. It is separated by a distinct versant; it would be absurd to call it a river of Damascus, and in the lower course it is a dull, sluggish stream, of which not even a Syrian could boast.

I would suggest that the Ayn Fijih represents the ancient Pharpar. No one speaking of the waters of Damascus would neglect this important influent, whose clear, green tints delight every traveller, and which rushes from its rocky cave a rivulet, whereas the Baradah (Abana) rises a mere ditch. The Ayn also is the health-giving portion of the "gold-flowing" river; when the Baradah, whose bed in the Zebedam valley is lined with foul vegetation, appears unusually full, the Damascenes expect an unhealthy season.

RICHARD F. BURTON, Vice President, Anthropological Society.

SOCIETIES.

ARCHÆOLOGICAL INSTITUTE.—Nov. 4.—Major-Gen. Lefroy, V.P., in the chair.—This being the opening meeting of the session, the Chairman adverted to the Annual Meeting of the Institute, lately held in Leicester, and then spoke of the excellent prospects of the forthcoming meeting at Cardiff. The Hon. Secretary had just returned from a visit to Cardiff, where he had met with promises of support for the meeting on all sides; an active local committee had been organized; and the district was rich in objects of antiquarian interest. The Chairman concluded by speaking of a discovery made by himself, of a Runic inscription,

in a tumulus, in Ireland—the first found in that country. On a future occasion he would put all the circumstances before the Institute; he now simply announced the fact and exhibited the object. -Mr. Nicholl gave an account of the discovery of a Roman villa at Old Cotes, near Worksopp, Notts. It contained a mosaic pavement, representing Theseus in the Cretan labyrinth; and among the nume. rous fragments of the building exhibited was one of a flooring-tile, covered with a thick coat of plaster, and painted. No similar instance is known.-'Remarks on the Monument of Carnac in Brittany,' by Mr. Yates, were then read. The writer combated the "Draconian" theory of the monument, and maintained that the assemblage of stones on this spot was accidental, and their apparent arrangement in lines the result of simple operations to clear the surface of the ground for the purpose of tillage. This position was not generally accepted in the discussion that ensued.—The Hon. W. O. Stanley, M.P. exhibited ten Relics and Implements found in continuing his investigations of the ancient habitations in Holyhead, and differing in certain respects from the objects previously found there. —Dr. Thurnam sent a Cast of part of a Cinerary Urn found in Wiltshire, and one of the small "Incense-cups," found in a barrow near Devizes. He thought two small holes in the side could have been for fixing it on a handle, and it might then be used for fumigating purposes. This suggestion was discussed at some length by the Chairman, Dr. Rock, Mr. Greaves, and others.-Dr. Keller, of Zurich, sent Photographs of the Castle of Mamerkhofen, in Thurgovia, showing remarkable Cyclopean construction with ice-born blocks, of which other examples are known in Switzerland Mr. Albert Way sent a Photograph of the Sculptured Churchyard Cross at Eyam, Derbyshire, known as the "Plague Cross"; and Mr. Greaves made some remarks upon it.—The Rev. Greville Chester exhibited a Censer from the ancient Coptic church of Mar Taddao, Old Cairo.-Dr. Rock thought it not earlier than the thirteenth century.

LINNEAN,—Nov. 3.—G. Bentham, Esq., President, in the chair.—The Rev. S. Mateer was elected a Fellow.—The following papers were read: 'Notes on a Solitary Bee allied to the genus Anthidium, Latr.'—'Notes on some Species of Habenaria, found in South Africa.'—'Notes on a Species of Disperis, found in the Haguberg, South Africa.'—'Observations on the Fertilization of Disa macrantha.'—'Observations on the Mode in which certain Species of Asclepiadeæ are Fertilized.' All by Mr. J. P. M. Weale.

ZOOLOGICAL.—Nov. 1.—Prof. Newton, V.P., in the chair.—The Secretary read a Report on the additions made to the Menagerie during the past four months. Particular attention was called to the animals from Chili. Of twenty-two species obtained no less than twelve were new to the Society's series, and some, such as Burmeister's Cariama (Chunga Burmeisteri) and the small Coscoroba swan (Cygnus Coscoroba) were of special interest. Another valuable addition was a male of the Ethiopian Ant-bear (Orycteropus Æthiopicus) from Upper Nubia. This animal had been placed in com-pany with the Cape Ant-bear (Orycteropus Capensis), and afforded an opportunity for the comparison of the two species together. — A memoir on the structure of *Pectinator Spekei*, a peculiar Rodent of Eastern Africa, was read from Prof. W. Peters.—A seventh letter 'On the Ornithology of Buenos Ayres,' by Mr. W. H. Hudson.—Prof. Newton exhibited a chick of Anarhynchus frontalis, remarkable for possessing an asymmetrical bill.—Mr. C. Darwin communicated a note on the habits of the Pampas Woodpecker (Chrysoptilus campestris), in reply to some observations made by Mr. W. H. Hudson, in one of his previous letters.—Six communications were read from Dr. J. E. Gray, on various points connected with the Natural History of the Testudinata.—A communication was read from Mr. W. Theobald, containing observations on a paper by Dr. J. E. Gray, on the families and genera of Tortoises, recently published in the Society's Pro-

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