

and in the Paraderos Patagonians, draws attention to the diversity of opinion to which the occurrence of this bivalve has given rise, Dr. Boni deducing from it the theory that the Emilian Terremare are the sites of human habitations on artificially constructed water basins, whilst Dr. Coppi regards them as the remains of sacrificial or other slaughter places. Dr. von Martens has ascertained by personal observation that the Paraderos of Patagonia resemble in very many respects the Danish Kjøkkenmøddings. It is worthy of note in reference to this subject that shells of the Adriatic form (*Aporrhais pes pelicani* and *Venus verrucosa*) occur in the Moravian pile-dwellings near Olmütz, while Mediterranean shells (*Cypræa pyram* and *hirida*) have been found on the Dordogne. These facts, which afford incontrovertible evidence of the extension of commerce in pre-historic ages, are corroborated by the appearance of Red Sea if not Indian Ocean forms of shells, as *Eburnia spirata* in a Mariera at Reggio, and of *Cypræa pantherina*, in the Allemannic tumuli of Württemberg. It has been suggested by Dr. E. Friedel that the *Unio pictorum* L., and the *Alasmodonta compressa*, which are so abundant in Italian Lacustrine deposits, may be connected with the presence of domestic swine, as these bivalves constitute in the present day a very important element in the food of these animals in the poorer districts of the Oder and the Brandenburg Mark.—In conclusion we would draw attention to a curious paper read by Herr von Meyer before the Anthropological Society of Berlin on the origin of "Right and Left," and the causes which have led mankind to give the preference to one over the other, in using the hands and feet. The superior estimation of right over left is shown alike in the most ancient forms of Egyptian sculpture, in Jewish ordinances, in Hellenic poetry, and in language generally, whether of Turanian, Scythic, or Aryan origin. In these tongues the right hand is synonymous with what is good, straight, and right, while the left is identical with what is awkward, evil and abnormal. The author attempted to explain the universally diffused preference for the right hand on the ground of instinctive religious veneration in primæval man, who raised the right hand in adoration as he traced the course of the sun from its rising to its setting, while Prof. Virchow was inclined to refer it to a primary physical principle of the human organisation. The subject gave rise to an animated discussion in the Society, and led to the consideration of several questions of interest to the student of ethnology.

Sitzungsberichte der naturwissenschaftlichen Gesellschaft Isis in Dresden. Oct.—Dec. 1872.—The principal paper in this number is one by M. Ackermann, giving a comprehensive account of recent deep-sea researches.—Dr. Hoffmann furnishes a critique of Zöllner's work on comets; and among the shorter notices will be found information on Phylloxera, the physical features, climate, and products of Venezuela, silk-worm-cultivation, the Zoological Garden at Dresden, and other topics.—The succeeding number (Jan.—Mar. 1873) consists, in great part, of zoological lists.—M. Rostock enumerating the Neuroptera of Saxony, and Dr. Köhler the Gasteropoda and Conchifera of Schneeberg.—In the botanical section, M. Wilhelm gives a list of plants found on the Murray river in Australia.—M. von Kiesenwetter communicates a paper on the history of zoology to the time of Linnæus, being chiefly an abstract of Carus's work on the subject in a voluminous "History of the Science in Germany," now in course of publication.

The American Journal of Science and Arts, Sept. 1873.—In a fifth paper on some results of the earth's contraction from cooling, Prof. Dana treats of the formation of continental plateaux and oceanic depressions, thus concluding the reconsideration of the views he brought out in 1847. Besides the admission of a solid nucleus and the present partial union of the crust to the nucleus, these views have been modified in some points connected with mountain-making and metamorphism, in accordance with ideas developed by Le Conte and Mallet, and the results of personal study. The author gives a valuable summary of his progress.—Prof. O. Rood has a paper on the residual or secondary spectra which Brewster studied, and which are obtained when white light is passed through two prisms of different substances, so arranged as to compensate each other for colour. The Professor has obtained a large dispersion in such spectra by using as one of the constituents the spectrum furnished by oil of cassia, bisulphide of carbon, or flint glass, the other being the normal spectrum from a diffraction grating. Some curious experiments with these are described.—A paper on the explorations last year, by the Snake River Division of the U.S. Geological

Survey of the Territories, is furnished by Prof. Bradley; and another geological paper, by Mr. Washburn, treats of the Bosphorus region. There are also notes on the Corundum of North Carolina, Georgia, and Montana; on minerals found at the Tidley Foster Iron Mines, New York; on an apparatus for rapid filtrations; and on the discovery of a new double star β Delphini.

SOCIETIES AND ACADEMIES

PARIS

Academy of Sciences, Sept. 1.—M. Bertrand in the chair.—The following papers were read:—On the Aurora Borealis, by M. Faye. The author's paper related to Donati's late memoir on the same subject, in which he suggests that the passage of electro-magnetic currents from the sun to the planets is the cause of this phenomenon. M. Faye, on the other hand, deprecated the introduction of such a theory, and suggested that the effect of gravity as an agent in producing these effects may at least be probable. He suggested that motions such as are observed in the tails of comets might occur in the upper regions of our atmosphere, *i.e.* that excessively attenuated air might be constantly rushing from the side of the earth turned towards the sun to that turned from it, and that this motion might cause incandescence of the air, visible at the poles as auroræ.—On the Carpellary Theory as regards the *Amrygdalacææ*, by M. A. Trécul.—Gnomonic projection, &c., of a portion of the Sahara, by M. A. Pomel.—Study of the metallic veins of Cornwall; structure of the rich veins, and their relation to the stratigraphical arrangement of the country, by M. Moissenet.—On the Siemens coil, by M. A. Pellerin.—Observations of Planet 133 and of Borrelly's comet, by M. Stephan.—On the changes of form of Comet IV., 1873, and on its spectrum, by MM. G. Rayet and André. The comet has developed a tail and become brighter; it has no nucleus. Its spectrum at first consisted of three bands, one between D and E, another very close to *b*, and a third beyond F. After the tail had developed the same bands appeared, but they were larger and brighter and accompanied by a faint continuous spectrum.—On the form of the Martial seas as compared with the terrestrial oceans, by M. Stan. Meunier. The author considers that the long narrow straits on Mars are an additional proof of its greater age as compared with the earth. Taking the soundings of the Atlantic, he observed that if its level were reduced 4,000 metres (by absorption), it would then present a similar aspect to the Martial seas.

BOOKS RECEIVED

ENGLISH.—The Sea and its Wonders: Hartwig (Longmans & Co.).—Centrifugal Force and Gravitation: John Harris (Irubaer & Co.).—Quantitative Chemical Analysis: Thorpe (Longmans & Co.).—What a House should be: William Bardwell (Dean).—The Convulsions of the Human Brain: Ecker (Smith, Elder & Co.).—Scripture Manual (Murby).—Mechanics: Skerctchley (Murby).—Report of Freshwater Fish and Fisheries of India and Burmah: Surg.-Maj. Francis Day, Government of Calcutta.

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