The conditions devoted & generalised made the lovery "National Solvetion" + "Batte of Life" have not bear burn to effect the incoming of any new trecies. Other constrain, when the term " (onless for Exaterse " were discusped in a Moneyor on Discount Jubbohas in the No Vol. of the " ransactions of the hostogical vocaty, 1850, p. 15, mobiel one part led me to proponed this law as operative in the Expiredion of Species; but I fulled to deminatealle No operation in their Onegen. The influences of Exercise is Arouse in changing the proportions of Parts in the desection of sureace or words, are verse course, and I believe them to have been manned operative in the origin of socialists and the property of the original social so nothe attempt to appear the way of worth in Nonogeney fails to meet all the phonomena of the origin of Jeres; The author of Vestiges of Creating mideal conforted defeatures from execution or printer leps: I thing is a veria course. but like homershy Dansing in modequate. That opener originated through the granded or

London, Positish Museum.



Esteemed Tollengue, My friend D'. Murie has conveyed to me some friendly apprepions of your's which I truly appreciate, with an enquiry as to my views on the ou-termed Darwinian Hypothesis " With a majority of our Bistogists and all cultivated English this is held to be Synonymous with Normogeney or the origin of Species by Secondary Law, as opposed to Traumato-- geny or their origin by direct or micaculous (reation There are a few who recognize the attempt made by our Prief of Naturalists to explain the mode of operation of the Secondary Law; as alm to the Lamarchion Hypothers, or the organ of species by degeneration of Buffor : i.e., to be another attempt to expound the modes operande; of the "Secondary In" " The

London British Mudoum,

CHINDS

Esternes Jollergue_

My priend Dr. Murie has conveyed to me some friendly appreprious of you's while I trady appreciate with an enquing on to my views on the or Time ! Walnowins Espothers " With a majority of our Bishofist, and all cultivated inglish this is held to be Engrangement with Monogery or to origin of Recies by decondary daw, as opposed to Gramate. gong or then orgin by direct of misealong (restan There are a few who recognize the attempt made by our Prief of Watershiots to explain the mode of operation of the decording law as when to the Canareleon My pothers, or to organ of openio by dequention of Buffor: i.e., to be another attempt to expound the moders operands; if the been day down - The

The conditions worked & generalised under the terms "Natural Selection" + "Battle of Life" have not bear shown to effect the incoming of any new Species. These conditions which under the term " Context for Existence " were discusped in a Momor on Dinoming published in the IV. Wol. of the "Transactions of the Toological Joesty, 1850, p. 15, in which my facts led me to propound this law as operative in the Extinction of Species; but I failed to demonstrate to operation in their Origin. The influences of Exercise & Disuse in changing the proportions of Parts in the direction of necessar or waste, are vero cause, and I believe them to have been mainly operative in the origin of Sockerapher) one species as Dinornes & Dides But damand, noble attempt to explain the way of work in Nomogeny fails to meet all the phenomena of the origin of Species. The Centher of Vertiges of Greating invoked congenital departures from specific or parentary type: I this is a vera cousa? but like Lamarch, Darwing is madequate. That Opener originated through the granded or

pro.

prografine operation of Secondary Law, as, e.g. in Vertebouta " from the first embodiment of the I dea under its old Ich theye Westment, until 4 it became arrayed in the forwars garby the a Human harm : - I formally aunounced with as formal rejection of the hypothesis of Mauma. - togony, in my Lecture i" On the Nature of Limbs," at one Royal Institution, Relo. 9, 1849. published in the Dame year, I'm Van Voort, London (au p. 06): but I confessed myself ignorance of the way of work of breek transmutation by ascent, and could not offer any domonstrative theory. A fuller discussion on this great question in which the terms Nomo - + Thaumato - gening are define, constitutes the concluding Chapter of my. "Anatomy of Kertebrates," I'm with I (106h). I felt then as I more feel in the condition of Coper news when asked doby all things loose on the surface of the earth who not whirled into space by his hypothetical movement of desimal votation ?? I do not know ." But, If you will accept Nomogeny, it will explain many

the first to fer :- Buffer , begins uters;-Komarchi outotalching of the Ruminout neck to browse ; - Rossoms lay leger duy in our Eloud of Haves, dustifes There at the cost of the chort legged property - one all prince worthy attempts, but to my indestanding firlures to of from the word of of four to the forming they I by the andery of the respect prograp of Ahronom, after the Sundo tol dopma of the friends of the chief & grating central object of country was alondoned "we may confridently look for a like propely of our own Science of Brotogy But the Galiles the legler to the Monston are get to come. I you are at Clusty to make my use of this from the Corpress.

Many phenomena and groups of whenomena in Biology, which are wholly unintelligible by Thoumatogeny? When an orthodox priend asks: "How dogget Mom out of our ape?"? I am obliged, with Topernieus, to emplo: "I don't know." I am not oue, indeed, Mont day present form of Quadrumome was ouch ancestor.

In Cycles & Epicycles' were not
greater obstacles to the exposition of the
addional faits in Astronomy contributes
by Copernie & his contemporaries, then
the Oplint bones' in the Horse, with
an occasional birth of a foal in the
pedal condition of Hipparion, are
conceivable according to the direct creation
of Horse & Mare as unduston by

A many phononona and stanfer of phenomena in Bertogy, which are wholly mintellight by Thourstogeny. When an ortho tot prince works " How dogst to Mon out of in ape "? I may obliged, with Coperious to confession I don't know," I am not one pulses, . that my present four of Sundymone to was hick theerton The Cycles & Epigeles' was not grater obtails to the expension of the addinal faits in A tronomy contenting by Coperine of line contemporaries , thouse the Oplant loves in the Horse with on occasional bitts of a food in the present condition of Replyanion are consumbly according to the direct creation 4 the Horse & Mare as unbertion by

by Theology'. Demaillets Trumy of the fish to gly :- Buffon; Degeneration; -Lamarch's outstretching of the Ruminomto neck to browse ; - Darwins long-legger dogs in an Flored of Hares, dwelper there at the cost of the short-legger projery. - are all praise worthy attempts, but to my understanding failures, to replain the way of operation of Homogeney. Biology is in its Operation Stage: I by the analogy of the rapid progress of Astronomy after the Sacerdotal dogma of the fixity of earth, as the chief & greatest central object of creation, was abandoned we may confidently look for a like major to of our own Science of Brilogy, offer to respective of Thaumatogeny! In Wenter of the Newton are get to come . If you are at liberty to make any use of this, from, forfreie, your follow - labourer of Confreie, Richard Owen.

patience l'aure final del andonine et de l'artiste derait colomes depue de no her dans value lexibeliales,

tenjung vote bestware,

an Music britainique à Londres

Mon cher Confreix,



Votre armable Lettre m'a donné beaucoup de plaisir, et je lui aurais plus tot repondre, i ement j'wvis voula en mime temps vouss avoir envoyé la deuxième partie de mes emelusions our la Spirula, Celle-co a été retardre à cause de l'apparition tardros de la dernière parke de mos "Proceedings ofthe Zorbegual Vaciety " (Amil 1-/99) Il ne faut pas vous die combien je derai content si une portion grable

an Music bitamique in Lorder o es exist, 1079



Min ches Corpores

Volla nimable fetter in a dance plus tot reponder, a tement j'nous emerge la denzione partie de mes constrains our la Murula, Celleron a c'he retaindre à cause de l'apparation tarbure de la dernice parke de nos Froweedings fle corboqued Overety " (ident 1-/19) Il ne fout pas vous die contra je derni content to une portern

gas lle que ce toit, de celui, pentêtre l'auvre final de l'andtomiste et de l'artiste serait estimée dique de notico dano voto Periodicale instructive.

> (longery mor , trujine, vote her devone, Rich? Owen.

This step, with nesignation of my Profesarship, changes my designation, into:-Sir Richard Owen, K. C. B. " Perhaps you would kindly give my respectful request to the Secretain Perpetuel de l'Academie des science ; to enter my name, as above, in the Categorie of horeign Associates? Believe me, with truest regard of cespect,

Vichard Dwen.



Speen Vodge Richmond Park

25 January, 1884,

My dear Tir, and Confrere,
I venture to trespaps on you with this introduction of my friend,
M. E. P. Ramssay, Director of the Museum
of Natural History, in Tydney, New South
Wales, who had charge of the Australian
Department in the late Visheries Expebition
in London. He has been charged by the
Australian Government to inspect and
report on the Against of Europe.

The result will be the formation of om Aquarium, under Mr. Ramsay's direction at Port Jackson, and we may expect numerous and most interesting results. I should have felt myself blameably wonting of I had not given Mr. R. the apportunity of becoming known to you and profiting by your great and valuable experience. I take this apportunity of stating

that, toward the close of last year, finding the arrangement of our National Natural Stistory completer in the New Building, S. Kensugton, and that I had served in State. Museums 59 years, I requested permission to netire. It was granted in gratifying terms, and Her majesty was gracionsly pleased to promote me to the Commander Ship of Her Honorable Order of the Bath, of which I was Companion. This

By fevor of M. E. P. Ramsay, Jr. L. J. a' Mons. Le Profe Jeur H. de Lacaze - Duthiers, Monthe de l'Institut, Acad des Sciency Paris. R:Owen

I take this opportunity to inclose mayor if an Abstract of a Paper wheel will appear in the forthe coming Volume of the Willosoft. Tronsation doingly as the locality of its sudgest a singular from of large many horned exectaland Seving from " Lord Houses Island" witherto only known in testiony nocks of the Australian Continent seemed to me to be confirmation of :-Les prenses de l'éfordrament d'un continent austral pendant lage moderne vila la Tenza "assacionaly suggested in 1882, by one Confree Emile Blanchard.
(Conflee Readed to, 16 Hout, 1886) to whom, with yourself, I offer

Sheen Lodge Richmonil Park, East Theen, S.W. 25th August, 1886. (England) 25th. August, 1886. Esterned Colleague! Aporpos to the historical Summary prefixed by M. G. It Remy to his acceptable Memoir -"Sur la Frueture du Cerveau des Myriapodes,"-(Tomptes Rendus', &c., 26 Juillet, 1686, p. 288.") -May I ask his attention to my "Anatomy of the Invertebrate Animals," 800, 1855, p.p. 355-7, " where the Newvas Tystem is described and illustrated in Julus terrestris, and partially in Polydesmus (pes. 144, 145). Tupplementary views of the boain of Julas are given in a later Monograph' on Timulus polyphemus, 4th, 1873, p. 20, Plate II, jess. 6, 7, 8; (A copy of this Work should be in the Library of the "treademic des Sciences", also in that of our estimable Colleague de Quatrefages, à M. H. De Laceze - Dethiers, Membre de l'Institut,

25th Stepat , 1886, (England) Esterned Colleague! Aporpos to the historical hummary property by Mr. G. F. Rome, to his acceptable Memoin -" In la Fruiture du Correau des Myris pades". (onfled Renders) be, 26 Juille, 1006 p. 288") -May I ask his attention to my Fredoms of he hisostebrate Friendle," 809, 1855, p. 4. 355- 4. where the terround Tystom is described an illustrated bound of where one given in a later Minisgraph on Trailes polyphonnes " Ate, 1873, p. 20, Plate II, figs. 6, 7, 8; (It copy of the Work should be in the Survey of the diadenic des Towner of also in that of our extended Charque de Quatrofrages i. Mr. H. Ge Jacoge- Sinthier of , Member In Mothetates

I take this opportunity to inclose proofs of an "Abstract" of a Paper" which will appear in the forth-coming Volume of the Philosoph: Transaction chiefly as the locality of its subject a singular form of large many - horned edentalous Squeries from Lord Howe's Island's hitherto only known in tertiary rocks of the Australian Estiment. seemed to me to be confirmatory of:-"Les preuves de l'éffondrement d'un " continent austral pendant l'age moderne vde la Terre ", sagacionsly suggested in 1882, by our Confrère, Emile Blanchard: (Comples Rendus, 4, 16 Hout, 1886), to whom, with yourself, I offer my best regards,

. Richard Owen.

a M: H. de Lacage - Duthices, Membrede l'Institute



"Description of Fossil Remains of two Species of a Megalanian Genus (*Meiolania*, Ow.), from Lord Howe's Island." By Sir RICHARD OWEN, K.C.B., F.R.S. Received March 15, 1886.

(Abstract.)

In a scientific survey by the Department of Mines, New South Wales, of Lord Howe's Island, fossil remains were obtained which were transmitted to the British Museum of Natural History, and were confided to the author for determination and description.

These fossils, referable to the extinct family of horned Saurians described in former volumes of the "Philosophical Transactions" ander the generic name Megalania, form the subject of the present paper. They represent species smaller in size than Megalania prisca, Ow., and with other differential characters on which an allied genus Meiolania is founded. Characters of an almost entire skull with part of the lower jaw-bone, of some vertebras and parts of the scapula and pelvic arches, are assigned to the species Meiolania

^{*} Vol. 149, 1858, p. 43 ; $\it ib.,$ 1880, p. 1037 ; $\it ib.,$ 1881, p. 1037.

platyceps. Portions of a cranium and mandible are referred to a Meiolania minor. Both species, as in Megalania, are edentulous with modifications of the mouth indicative of a horny beak, as in the Chelonian order. The cranial and vertebral characters are, however, sauroid. Horn-cores in three pairs are present but shorter relatively, especially the first and third pairs, than in Megalania prisca. The indication of a seventh more advanced and medial horn is feeble, and the author remarks that in the small existing lizard (Moloch) this horn has not an osseous support. The tail of Meiolania is long and stiff; the vertebræ being encased by an osseous sheath, developing, as in Megalania, tuberous processes in two pairs, corresponding with the vertebræ within: such defensive parts are less developed, relatively, than in Megalania prisca.

The locality of these singular remains is an insular tract not exceeding 6 miles by 1 mile in extent; situated mid-way between Sydney and Norfolk Island, in lat. 31° 31′ S., long. 159° 9′ E. The island is formed of three raised basaltic masses connected by low-lying grounds of blown coral-sand formation, consisting of rounded grains and fragments of corals and shells. In the parts of this formation converted into rock were found the petrified remains which are the subject of the present paper. It is accompanied by drawings of the most instructive fossils: these form the subjects of five relevas illustrative of the text.

à M: Émile Blanchard, Membrerde L'Institule, apropos to p. 408, of the Jontes Rendus" for 16 Hout, 86.



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E.P. Ramsay, F.L.S.

Curator of The Australian Museum, Sydney, Commissioner of the New South Wales Tisheries.

and To fellurie, London