

syllabes caractérisant les trois sections coniques ; d'où régulièrement ellipsoïde, parabolicoïde et hyperdomoïde. D'autres figures, moins chargées, au contraire, que la pyramide, sont dites *trémoides*. Ce seront toujours, domoïdes et trémoides, des corps ou solides polygonaux, ou du moins considérés comme tels, et les rapports caractéristiques  $\frac{3}{2}$ ,  $\frac{1}{2}$ , se constitueront le lien commun dans chacune des diverses familles. Ce sont choses que les curieux peuvent étudier dans mon ouvrage : *Théorie des Cristalloïdes*."

"*Geometria renovata*. Création d'une géométrie nouvelle, d'une morphologie architectonique. *Geometria philosophica*. Doctrine préexcellente ; de même que le polygone engendre le cercle, de même les cristalloïdes engendrent les sphéroïdes ; *geometria Hugodomoidica sive Hugodomoidalis ! geometria aspheristica !* de même l'équidomoïde engendre la sphère !"

"Circulaire à messieurs les mathématiciens (on est très-poli dans cette géométrique-là) :—L'équidomoïde pré-archimédien a l'honneur d'informer votre seigneurie que par arrêté de S. E. le Commandeur Léopold Hugo, Président de la Géométrie Architectoni-primordiale, il a été nommé au poste occupé précédemment par la sphère, et qu'il s'y maintiendra envers et contre tous. L'équidomoïde espère que votre seigneurie voudra bien, ainsi que LL. AA. les Académies scientifiques, accueillir favorablement sa nomination et lui donner aide et appui contre les retours offensifs de la titulaire dépossédée. Il saisit cette occasion pour exprimer à votre seigneurie toutes les assurances de sa très-respectueuse considération.

"Equidopolis, le . . ."

The motto is "Devise anti-archimédienne. L'équidomoïde va bien : le rebelle gagne du terrain ! . . . suppression de la sphère !"

We have, in a recent number of NATURE, given a sketch of a work by the same author. Now we let him speak for himself. When we say that there are "Placards singuliers," "Placards plus ou moins singuliers destinés à MM. les Elèves de Mathématiques (Pamphlet fantasia)," "Objurgation Hugodomoidale," "Inauguration Transatlantique,

"Yankee doodle went to town

Upon th' equidomody,

Cocked a feather to his hat

And called it cristalloïd !"

&c., &c., in many languages, we have furnished our readers with some idea of the two works before us. *Spec-tatum admissi, risum teneatis ?*

Count Hugo is the author of at least six pamphlets ; two more are in the press, and more in preparation, "and still they come."

Our latest acquisition is a sheet on "the Pan-imaginary theory (not the frying-pan)." "Here the space with  $n$  dimensions gives birth, by its successive phases, to the *real space*, with  $n$  dimensions, and specially to the *natural space* with three dimensions, and to the sub-natural space with two dimensions, &c."

#### LETTERS TO THE EDITOR

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"The Recent Origin of Man"

THE letter of the author of the above work in NATURE, vol. xiii. p. 484, presents two points which demand an answer. 1. The reviewer is asked for his authority for the statement that palæolithic implements have been met with in Asia Minor. It is to be found in Evans' "Ancient Stone Implements," p. 571, and in Dawkins' "Cave-Hunting," p. 429. The discovery was made by the Abbé Richard between Mount Tabor and the Sea

of Tiberias. 2. My opinion, which is also shared by some of the leading archæologists of Britain, that the interments at Solutré have not been proved to be palæolithic, has unfortunately evoked a charge of "ignorance and treacherous memory" from the author. I would merely remark that I am not ignorant of the account of Solutré in the "Matériaux," and in the "Archives du Muséum de Lyon," the latter of which is apparently unknown to the author, nor has my memory failed me concerning the debate on Solutré at the French Association, and the human skulls and implements which I then saw. Mr. Southall's argument as to the modern date of some of the reindeer, based on the percentage of gelatine in their bones, may be left to the tender mercies of Mr. Evans, and the comparison of the finely-chipped implements, with the Danish Neolithic finds, to those of M. de Mortillet, who takes them to be typical of one of the stages of the palæolithic period.

The discussion of the other questions raised in the letter, such as the Neolithic age of the *Rhinoceros hemitachus* of the Gibraltar caves, or the reiterated assertion that the Irish Elk lived in Europe in the middle ages, is unnecessary in the present state of scientific inquiry. How an appeal to the mound at Hissarlik, to the discoveries at Alise, to the pile dwellings, to the food in the stomachs of fossil elephants and Mastodons, or to the recent elevation of Uddevalla can prove the "recent origin of man," may safely be reserved for decision to the judgment of the reader, without any comment from

THE REVIEWER

#### On the Formation of Coral Sand

IN the best books on geology one finds that the formation of coral sand is attributed to trituration by the force of the surf, the waste of shells and minute globigerinæ, and even to the droppings of those fishes which are said to browse upon the living coral.

While residing at Santa Cruz in the West Indies about this time last year, my friend Mr. Quin, inspector of schools there, first pointed out to me the great importance of a certain seaweed in the formation of coral sand, and I had ample opportunity for verifying his observation while I stayed there.

A Coralline limestone is formed of coral blocks, consolidated coral-sand, and mud, shells, and myriad calcareous cases of minute organisms. Of these, next perhaps to the coral itself (of which I have seen great masses whose features were not quite effaced by percolation, &c., in the upheaved limestone of Santa Cruz), the bulkiest ingredient is the coral sand and mud, especially the sand, the shells and cases being of minor importance.

We are invariably taught, as far as I have seen, that coral sand is mainly formed of the trituration of the coral skeletons among each other, but it is difficult to see how this can be when one has seen both the sand and the skeletons, and the action of the surf which is mostly among the coral yet alive and cushioned with a vegetable matter. The coral skeleton is extremely hard and crystalline, and when two pieces of dead coral are rasped together by the action of the wave breaking over the reef they will triturate themselves into very fine grains. One can understand how the coral mud can be formed in this manner ; but not so easily how the coral sand is formed. A glance at coral sand as it is seen forming the curving beaches in the pretty coves of the West Indian Islands shows that it is formed of coarse calcareous grains smoothed and rounded by the water, and of rather a soft friable nature, more like water-washed fragments of stucco or shell than crisp coral. On examining it more closely one sees that it is mainly composed of fragments and scales of soft calcareous matter of a mellow whiteness, and easily broken between the fingers. The larger of these scales have a peculiar shape, roughly like a half moon, whilst others are plainly only broken pieces of the larger.

Nor is the source of these far to seek. One finds everywhere strewn over the surface of the sand white bunches of a dead sea-weed, or rather of its calcareous skeleton, bleaching in the sunshine, every perfect leaf of which is one of these half-moon shaped scales, and all connected together by flax-like fibres. They have been cast ashore, by high tides from the fringing reef. (See fig.)

In the reef itself, while sailing over it, one sees among the dark coral masses white sheets of coral sand, and when these are scrutinised more closely they prove to be almost entirely formed of these broken scales or leaf-skeletons.

One day I went with Mr. Quin to the outer edge of the reef at low water, and landed on its shoaling crest. Mr. Quin was provided with a very useful lens, wherewith to view the