Museum—and he was afraid people were inclined to imagine the Museum to cope with that magnificent receptacle for the bearded woman and the two-headed calf. The aim, however, of this Museum was that it should really be, in a sort of way, the home of research in South Africa; that whatever scientific research there was in South Africa should find its home within the walls of the South African Museum, and that the collections should be so arranged as to illustrate the different branches of scientific research in that country. The Museum was under the general direction of Mr. Sclater, who had thrown himself into his work with a zeal and efficiency which left nothing to be desired. He had taken upon himself the management of the special branch—that of mammalia—the largest animals of South Africa. These were a vanishing class, owing to the rapidity of progress; for the spirit of civilisation was rapidly destroying all these interesting animals, which made South Africa at one time famous throughout the world.

It was sixty years ago since the great naturalist, Darwin, drew a remarkable picture of the mammalia of South Africa. He drew attention to the fact that the mammalia of South Africa were the largest and most numerous in the whole world; and he compared them with the mammalia of Brazil, and showed in what an extraordinary proportion the weight of our animals exceeded that of the South American animals. Now they had got rid of their mammalia here, and were importing frozen meat; and this could hardly be said to be improving nature. Before the mammalia were extinct, it was very desirable that a collection of them should be formed, and they would see a beginning had been made in this direction. Another branch the assistant curator, Mr. Peringuey, had taken under his charge, viz. the important division of entomology, or the study of insects. Some people, little thinking of the important part insects played in the world, smiled, but it was an insect that cost France more than the Franco-Prussian war; it was an insect that formed their most acute political differences in this country. When he ran through the important part that insect-life played, he sometimes wondered how it was possible for man to exist on the face of the earth at the same time. They also had another gentleman working in the same direction as Mr. Peringuey, viz. Mr. Lounsbury, the able entomologist. They wished, however, to make the Museum the home of insect life—though not of live insects.

Dr. Corstorphine was in charge of the geological section of the Museum, which up to the present time had been neglected. Dr. Corstorphine was making good progress, and in connection with that the Geological Commission had its home in the South African Museum. Dr. Purcell, a South African, had set a fine example. After studying in the science schools of Europe, he came out here to spend his life; he was in charge of the invertebrate section; and finally there was Mr. Gilchrist, who had come out as an expert upon fisheries, and who was in charge of the marine section. So that all the branches were fairly well organised, and the scheme, they would admit, was a good one if it could be carried out. For the organisation the greatest thanks were due to his two fellow trustees, whose zeal and energy deserved all praise. On the Board of Trustees he represented the Philistine element, so he could lay no claim to credit for the scheme of scientific research.

Only one thing seemed to be lacking, and that was a very common thing indeed—that was, that they needed funds; they were crippled for want of money. Some of the gentlemen he had mentioned were working simply for the love of science, whilst others were working on a pittance which some of them would not think well to give to their upper clerks. They lamented in this country that they had not some of those liberal men who in America had identified themselves with scientific institutions. Parliament had been liberal enough in these matters, and it afforded him great pleasure in this connection to say that to Sir Gordon Sprigg they had a right to be thankful, because he had always acted to them, he would not say with liberality, because that was not the word to use in connection with public funds, but with a just appreciation which had not always been met with amongst his predecessors. Not only as head of the Government, but as a personality he called upon the Premier to formally open the institution in which they now found themselves.

Sir Gordon Sprigg said he remembered the South African Museum in the year 1858, in which year he first went to that country. From that time to the present, from a public, not from a scientific point of view, he had taken a very great interest in the institution, and it afforded him very great pleasure indeed to declare the Museum open to the public. Those who had had an opportunity of visiting the Natural History Museum at South Kensington would see that the trustees had endeavoured to follow out in every possible way the design of that great institution. After the very interesting speech delivered by Mr. Merriman, which explained the objects of the institution and the designs of the trustees who had brought it to its present condition—something like approaching to perfection—he would not weary them with any further words, but would simply declare the Museum open for the public. At the same time the trustees recognised the fact that they had never appealed to him in vain for funds, and so long as he held his present position they never would appeal to him in vain. From time to time, so long as he held the position he now held, it would always afford him great pleasure to submit to Parliament any proposals submitted to him for consideration.

Dr. Gill said he had been requested by his fellow-trustees to say a word about one who was one of his dearest friends, who worked hard under great difficulties before a liberal—or should he say a wise—Sir Gordon Sprigg arose. He was the one who really bore the burden and the heat of the day, one who under great discouragement persevered in creating the nucleus of the Museum they were now about to see—and that man was Roland Trimen, F.R.S. On an occasion like the present it would be a great mistake if they were to omit the name of one who had done so much for natural history in South Africa. Mr. Trimen laid the foundation of that museum; they all owed him a great debt of gratitude, and they ought to remember it on that day.

THE SCIENCE OF ART.

PERHAPS the learned Dr. Bastian, of Berlin, has appreciated more than any one else that the psychological aspect of anthropology requires far more attention than has yet been devoted to it; the present writer would venture to assert that it is the department of anthropology that most urgently requires students. No doubt the subject is difficult, but the reward will be great. Experimental and observational psychology have received but scant attention in this country, and the psychology of the lower races has been totally ignored by us.

Of late years several anthropologists have studied the origin and modifications of the decorative designs of savage peoples; but only a very few of these have recognised that the tracing out of the history of a pattern or a design is of minor importance compared with the psychological processes that induced the original selection of the motive, and that operated in its subsequent elaboration or simplification. The scientific study of decorative art is a branch of psychology.

The editor of our contemporary *Mind* also appreciates this fact, and so Prof. G. F. Stout has printed a paper on "Evolution and Psychology in Art," by Dr. Colley March, in the October number of that journal. Dr. March accepts the definition of art as given in Dr. Murray's great dictionary: "Art is the application of *skill* to implements of utility, to subjects of taste, such as poetry and dancing, and to works of imitation and design, such as painting, sculpture and architecture." For the sake of convenience, Dr. March divides art into: (1) Artifice, of purely utilitarian intention. (2) Artistic treatment, or the shaping or arrangement of the details, parts, colours or outlines of implements or structures, whether utilitarian or not, so as to "please the eye." (3) Ornament: works of utility are necessary; man is compelled to make things. We understand why, in the making, they should be artistically treated, for the eye has always been accustomed to see outlines that represent the most functionally useful, and utility is always pleasing. It is not quite so obvious why they should become the subject of Ornament. Ornament is a decoration applied to an object which could exist quite well without it. Several examples of every-day objects are given, which show that Ornament sprang from structural handicraft, and became

rooted in the mind by association of contiguity, and that thus an expectancy was raised for them of such urgency that transfer took place as occasion offered. The discussion of this subject takes up the greater part of the paper. (4) Embellishment is finery, which may be sexual, bellicose, proud, aggressive, or wanton, and not unfrequently these articles of embellishment cannot be regarded as examples of Fine Art. (5) The works of Fine Art can be sharply differentiated from Ornament. They have an altogether independent existence, and are not subordinate to serial repetition. It is their aim and end to excite a high order of emotion. If we admit that Fine Art exists solely for the purpose of furthering emotion, we may safely conclude that emotional craving originated it.

"In conclusion," writes Dr. Colley March, "the five elements of Art may be analysed upon an urn. Artifice has moulded a hollow vessel of earth, and has baked it so that it will hold water. As the gourd was in many cases its model, Expectancy has required its base to be much narrower than strict utility might have provided; but the ring that was once a stand for it has now become its foot. Artistic treatment has given it outlines that we, or others, call graceful; has coloured its clay, and washed its surface with a translucent glaze; and has carried aloft in symmetrical curves those handles that were once of ozier or of cords.

"Round the foot and shoulder and neck, Expectancy has drawn bands of Ornament, skeuomorphs [designs derived from technical methods of construction in handicraft] of binding, of basketry, or of textiles; and a phyllomorph [or plant-design] is parasitic upon them. Embellishment has hung a foolish chain in a festoon between the handles. And Fine Art has filled the middle zone with a bas-relief, or a painting, that moves the soul.

> 'What leaf-fringed legend haunts about thy shape
> Of deities or mortals, or of both,
> In Tempe or the dales of Arcady?'

Thus, revealed upon a vase, we witness not alone the elements of Art, but its history, its psychology, and its evolution." A. C. H.

ADAM HILGER.

BY the death of Adam Hilger, which took place on April 23, the physical sciences, and especially astronomical physics, have suffered a loss which cannot be immediately made good. Standing in the front rank of practical opticians, he did much to promote scientific progress along various lines, his thorough scientific training enabling him to undertake optical work of the highest character.

Born in Darmstadt, in 1839, he early showed a marked inclination for the mechanical work in which his father was then engaged. For some years he was a mechanical engineer in Darmstadt, and he afterwards entered Ertel's famous establishment at Munich. He next came to London, but, though commanding a good salary, he found no opportunity of advancing his knowledge, and soon left for Paris, where he had the good fortune to find employment with the firm of Lerebours and Secretan. During this engagement he constructed many instruments, under the direct supervision of Foucault, and became fully acquainted with the theory, as well as with the practice, of his art. After the war of 1870 he came to London with his family. Here he was engaged with Mr. Browning, at first as a simple workman, but afterwards as foreman. Having completed a five years' contract, he commenced business on his own account at Islington. At these well-equipped works he produced the instruments which have brought him such a high reputation among physicists and astronomers throughout the world. He was especially skilled in manipulating quartz and Iceland spar for work on the ultra-violet rays, and had lately succeeded in making very perfect achromatic combinations of these materials. The special qualities of the new Jena glasses were also well known to him, and by their use he produced achromatic lenses of very short focal length, as well as prisms of very high dispersion.

We understand that the business will be, in all probability, continued by Mr. Otto Hilger. A. F.

A NIGHT IN MID-MAY.

NOW tender eve has kissed the drooping eyes
Of sleeping daisies; incense floods the air,
Bowed Nature kneeling at her vesper prayer;
Mid rustling leaves the pensive night breeze sighs.
In heaven's great garden brighter flowers arise;
While throned Arcturus fires the southern skies;
Aglow the coils of Berenice's Hair;
Her wonted path the patient moon makes fair.
Calm whisperers! of splendours far away,
Glad messages in golden light ye bring—
A heart's desire fulfilled one happy day,
In perfect love and never ending spring,
Where painless pleasure shall no more take wing,
Nor spectral winter close the eyes of May.

M. C. L.

NOTES.

THE Bakerian Lecture will be delivered at the Royal Society on Thursday next, May 20, by Prof. Osborne Reynolds, F.R.S., and W. H. Moorby. The subject will be the mechanical equivalent of heat.

DR. E. J. STONE, F.R.S., Radcliffe Observer at Oxford, died on Sunday last. Astronomy has thus lost one of its foremost workers.

WE join in the general expression of regret at the death of the Duc d'Aumale, a very distinguished member of the French Academy. He spent a great part of his life in England, and received the honorary D.C.L. at Oxford in 1891. He frequently appeared at the Athenæum Club, and his interesting personality was therefore known to many who were not his fellow-countrymen. By a deed of gift, executed in 1884, the Duc d'Aumale's château at Chantilly, and all its precious contents, was presented to the Institute of France, in trust for the French nation, subject only to his life interest in the château. The Paris correspondent of the *Times* gives particulars of this splendid gift. By the terms of the bequest Chantilly must preserve the character of a museum. The exterior wings are assigned as lodgings for the three curators, and the museum, under the supervision of the Institute, will be an institution open to the public. Besides this, the Institute, to meet the expense of the preservation of Chantilly, is given the forest, the annual clearings in which produce about 100,000 francs. It also possesses other portions of the estate, which will produce more than the sum necessary for the maintenance of a museum. France will thus always possess a magnificent monument to the memory of one who held national welfare very dear.

THE annual conversazione of the Society of Arts will be held at the South Kensington Museum, on Wednesday, June 16.

THE Yachting and Fisheries Exhibition at the Imperial Institute will be opened by their Royal Highnesses the Prince and Princess of Wales, on Monday, May 17.

THE *Lancet* states that the Government of India, recognising the arduous and valuable nature of M. Haffkine's recent work in connection with the bubonic plague, has sanctioned the grant of a monthly salary of Rs. 2000 to him instead of the